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JANUARY, 1974

Vol. 71, No. 1

ANNUAL MEETING — May 11-14, 1974

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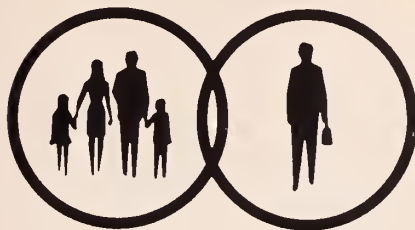
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Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

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Joint Statement on Antisubstitution Laws and Regulations

The purpose of this statement is to affirm the support of the participating organizations for the laws, regulations and professional traditions which prohibit the unauthorized substitution of drug products.

Traditionally, physicians, dentists and pharmacists have worked cooperatively to serve the best interests of patients. Productive cooperation has been achieved through mutual respect as well as a common concern for the ideals of public service. This mutual respect has been reflected, in part, by joint support over the years for the adoption and enforcement of laws and regulations specifically prohibiting unauthorized substitution and encouraging joint discussion and selection of the source of supply of drug products. The basic principles of medical, dental and pharmacy practice are thus utilized and preserved in the interest of patient welfare.

The antisubstitution laws have not obstructed enhancement of the professional status of pharmacy any more than they have in and of themselves guaranteed absolute protection from unsafe drugs, or freed physicians, dentists and pharmacists from their responsibilities to patients. As a practical matter, however, such laws and regulations encourage inter-professional communications regarding drug product selection and assure each profession the opportunity to exercise fully its expertise in drug usage, to the advantage of patients.

Physicians and dentists should be urged to increase the frequency and regularity of their contacts with pharmacists in selection of quality drug products, recognizing that

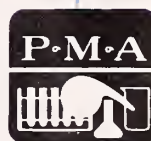
economies to patients can be improved through such communication, taking into account the patients' needs. The pharmacist's knowledge of the chemical characteristics of drugs, their mode of action, toxic properties and other characteristics that assist in making drug selection decisions should be utilized to the fullest extent practicable by physicians and dentists in serving their patients.

Since drug product selection entails knowledge derived from clinical experience, the physician's and dentist's roles in product selection remain primary and do not permit delegation of decisions requiring medical and dental judgments. A broader role in therapy will evolve for pharmacists as improved understanding and cooperation among the professions continue to grow.

There has been no evidence that there are convincing reasons to modify or repeal existing laws and regulations prohibiting the unauthorized substitution of another drug product for the one specified by a prescriber. It is our belief that such laws and regulations merit the joint support of the medical, dental and pharmaceutical professions and the pharmaceutical industry.

Add your opinion to the weight of other professionals and send it to your state assemblyman or legislator.

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EDITORIALS

Do You Get Too Many Journals?

Yes you do. You can't read all of the stuff that piles up on your desk. There's probably something good in every one of the magazines you get, or at least something that might be interesting, even if it's produced by Madison Avenue experts and not by physicians. So you feel guilty because you don't read them. Then you reject them all, including those in which you have a real stake. The situation has become intolerable and you're reacting as a normal human being.

You should know that this problem, like many others, has developed on the basis of dollars. The pharmaceutical manufacturing industry is currently spending \$100,000,000 annually on advertising. That is the gold mine from which the dollars come and any one who has a new idea for a magazine to send to doctors can dig. The number of magazines developed to send to doctors has increased, during the past few years, to the point that they are destroying their own purpose. The unfortunate part of this situation is that, unless members of medical associations realize what is actually happening, they will destroy also the scientific journals owned and controlled by physicians. In resentment, physicians are apt to say, "A plague on all your houses" and try to get rid of the good, the mediocre, and the poor, all at once. But the wisdom of such reaction is open to question.

In the practice of medicine, you don't generalize—you individualize. It might be wise to look at medical journals with the same kind of discrimination. You should realize that it costs money to publish anything. And you should know where the money comes from, what it does, and how to get what you want without increasing the part you pay. Most of the money required for publication of a medical journal comes from advertising—at least

three-fourths of it. But the money that might be used to make your own journals better is going to the magazines in the "controlled circulation" class—usually described as *throwaways*. They get the \$80 million; scientific journals are getting the \$20 million that is left after most of the available \$100 million has been distributed to the publications you get at no direct cost to you. Your cost is diminished ability of your own journals to give you the kind of publications you ought to be getting. It's up to you to decide which way you want to go—to magazines aimed at superficial interest, produced by non-physicians, or to journals given careful supervision by committees of physician critics, publishing articles by competent physicians, most of whom are known to you. When they live in your own region, you're soon aware of whether or not they know what they are talking about. Can you make that kind of check on the throwaways?

If you're fed up with the mass of published material coming your way there are three things you can do. First, you can talk to every detail man you see, telling him that you are supporting your own regional journal and that you think his firm should spend its advertising dollars where they will do you the most good. Second, you can hand a specific publication back to the postman, telling him that you refuse to accept it. Postal regulations require that the publisher then be notified. He will probably take your name off the list—each such notice from the post office costs him ten cents.

Third, and most important, you can and should let your own publication committee know what improvements you want made in your own journal. Your three representatives, with the Board of Trustees, control the operation for you. They set policy, they hire and fire. And, if you think you need a new editor, they'll fire the present one. If you really want a better journal, there are ways in which you can go about getting it.

Herbert L. Hartley, M.D.

Reprinted from the March 1973 issue of *Northwest Medicine*, of which Dr. Hartley is the Editor.

This Is Your Journal

The preceding editorial was selected by our late editor, Henry A. Davidson, and left to us with a legacy of additional material, beautifully and meaningfully written by him. We intend to utilize as much of it as possible in coming issues of your *Journal*.

As the new editor, it is my privilege and responsibility to evaluate our state publication, including its role and functions.

The Board of Trustees of The Medical Society of New Jersey, in its wisdom, has mandated certain aspects of its publication. Thus, there are two special issues, one devoted to the Annual Meeting and one to the Transactions of the House of Delegates. It has been customary to consider those scientific papers which are presented at the Annual Meeting for publication, even though the speaker may be from another state. Similar courtesy has been extended to out-of-state authors of scientific papers of general interest read before other major medical audiences in our state.

JMSNJ serves several functions, in addition to those described above. It is clearly an educational organ, which permits amplification of one's clinical knowledge by a review of scientific papers, case reports, and special articles, especially if one compounds his store of facts by a review of selections from the bibliographies. Many of the authors are well known to our readers, so personal contact and discussion on a point of interest is both feasible and simple.

The Journal is also an informational tool, providing calendars of current local, state, and regional meetings, and direct communication from federal and state government, including the State Department of Health, the Department of Institutions and Agencies, Medicare, and Medicaid. The special article on P.L. 92-603 and PSRO in the November 1973 issue is an example. Announcements and obituaries are obviously of interest to New Jersey physicians, as well as news about the College of Medicine and Dentistry of

New Jersey. Readers always have an opportunity to be heard through letters to the editor. In the past, editorials have been devoted to points of interest to New Jersey physicians, including social issues. Guest editorials have been published from time to time, but this department is not deemed appropriate for political debate.

It is our plan to keep the JMSNJ responsive to the wishes and needs of New Jersey practitioners. Faculty members and students of our two medical schools, as well as all clinicians and scientists throughout the state, should consider *The Journal* as an interface with their colleagues to share information. A new department, "Clinical Notes," will give even the busiest practitioner an opportunity to contribute. Unusual case reports are always desirable. This is *your* journal, so make us aware of your wants. It is our aim to make JMSNJ a regular part of your reading material. A.K.

Machinery and Personal Care

Today's medical student learns a lot about the machinery of medical care and it is true that these mechanical devices can save lives. But often enough we lose sight of the value of the emotional factor—the patient's feeling that another human being not only cares for him, but is taking care.

Experienced practitioners are aware of the healing value of the laying on of hands. The magic is not through tactile sensation, but through the emotional meaningfulness of the touch that means "I care." It is hard to think of a machine that can be applied to the skin that will quite have that mystique. One of the factors in the bad press that, they say, afflicts much of medicine these days is the patients' acquisition of the idea that the doctor doesn't really care. And these evidences of caring are in such subtle areas as the timbre of a voice, the touch of a supportive hand, and an inimitable attitude of concern. H.A.D.

ORIGINAL ARTICLES

Differentiation of entities which make up COLD requires both routine and sophisticated pulmonary function testing, and is beneficial in preventing further disease and in determining therapy and prognosis.

Chronic Obstructive Lung Disease*

Overlap Syndromes and Their Effect on Lung and Cardiac Function

**E. Leslie Chusid, M.D./Flushing,
New York**

Summary

The differentiation of entities which make up COLD (asthma, bronchitis, emphysema, small airway disease) requires both routine and sophisticated pulmonary function testing. The detection of early airway disease requires the use of newer techniques such as closing volumes and responses to bronchodilators employing frequency dependent compliance. The diagnosis of early airway disease, and documentation of lung abnormalities is of benefit to the patient in preventing further disease, and in determining active therapy and prognosis. Since both left and right heart failure may occur in COLD, prevention of underlying factors which lead to each, such as hypoxemia, acidosis, and altered perfusion, may enhance the patient's prognosis.

Chronic obstructive lung disease (COLD, COPD) is an all-inclusive term which encompasses the illnesses of asthma, bronchitis, and emphysema. Recently, the term has been amplified to include bronchiolar disease, or small airway disease (SAD). It is meaningful to the clinician and physiologist to designate which entity of COLD is the predominant factor causing symptoms, so that therapy may be channeled along appropriate lines. Since the effects of environment, allergy, infection, and emotion enter into the total symptom complex, prognosis may also be estimated by select-

ing the predominant factor. As an aid in this direction, a recommendation has been made to designate the major and minor factors when considering the diagnosis of COLD.¹ Thus, by a quick glance at a written diagnosis, with COLD classified as A (Emphysema), B (Bronchitis), or C (Asthma), one may ascertain cause, effect, and treatment course.

Since most patients have a combination of factors leading to COLD, other diagnostic terms have come into use in order to explain symptoms. These terms include asthmatic bronchitis, allergic bronchitis, bronchiolitic asthma, vasomotor tracheitis, allergic bronchiolitis, infectious asthma, and so on. Most often, this is an attempt at delineation of specific factors playing a role in a particular patient. Physical differentiation of causative elements in COLD is based on anatomical aberrations produced by disease in the proximal and distal tracheobronchial tree, as well as parenchymal and alveolar disease. These aberrations include edema, congestion, muscular hypertrophy in airways, hyperinflation with changes in intrathoracic pressure, loss of tissue structure, and alteration of airway mechanics during phases of respiration.

The noises produced by the abnormal lung are directly related to alterations in lung

*Read before the joint meeting of the Sections on Chest Diseases, General Practice, and Medicine, 207th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 14, 1973. Dr. Chusid is Assistant Clinical Professor of Medicine, Mount Sinai School of Medicine, New York.

function, i.e., wheezing and rhonchi are related to inspiratory and expiratory airway closure; rales are related to interstitial and intra-alveolar elasticity and recoil; terminal wheezing (end-expiratory) is related to small airway closure; and the silent chest is related to emphysema and hyperinflation which affects total air movement. Recent work in France, Russia, and the United States, points out that inspiratory as well as expiratory maneuvers are often noisy in patients with COLD. This is related to end-expiratory airway closure, plus the pressures needed to dilate alveoli and bronchi.

The effect of the entities comprising COLD is to alter airway resistance, disturb ventilation-perfusion relationships, alter pulmonary mechanics, and interfere with lung diffusion. Pulmonary function tests are capable of providing an ancillary aid in differentiating essential elements in COLD. Moreover, they are a help in diagnosing early disease and establishing prognosis by responses to acute and chronic therapy. Routine types of pulmonary function testing, however, may or may not show abnormalities, particularly in episodic asthma, asymptomatic smokers, and mild bronchitis. That is, the use of lung volumes for detection of increased residual volume and increased functional residual capacity; the forced spirogram for detection of reduced FEV₁, and reduced MEF_R; the routine performance of lung compliance at normal breathing rates; and diffusion studies may not show abnormal results. Newer techniques, such as closing volumes and frequency dependent compliance, may bring out airway problems not previously recognized by routine tests.²⁻⁵ We should be able, therefore, to detect early airway disease, which may be reversed by bronchodilators, and reversed by the avoidance of irritative factors, such as smoking and allergen exposure.

How can one detect the presence of emphysema, and differentiate it from asthma and bronchitis? Certain tests will pick out the patients with persistent hyperinflation, or loss of elastic recoil. These tests are basically the

maneuvers for lung volumes, diffusion, static compliance, and type of curves produced in flow-volume loops.⁶ The presence of emphysema disturbs diffusion by loss of ventilatory-surface area and diminished perfusion, and disturbs compliance by complete loss of elastic substance in the lung parenchyma. The diseases leading to COLD have hypoxemia and increased airway resistance as common physiologic abnormalities. The hypoxemia is due to abnormal ventilation-perfusion (V/Q) ratios caused by venous admixture disturbances, and/or diffusion impairment due to loss of surface area and diminished perfusion.

The closing volume study, which detects small airway closure in relation to expired volume is easy to perform. Several patterns may emerge such as a sharp end point with a sudden rise in expired N₂ or ARGON, a steadily rising alveolar plateau without a sharp-end point, or a moderate rise in expired N₂ or ARGON from the alveolar plateau. The sharpest end points occur in normals and following inhalation of a bronchodilator; the moderate end points or rising slopes occur in bronchitis and persistent bronchiolar disease.

Frequency dependent compliance may be altered with inhalation of a bronchodilator and is related to "slow" versus "fast" air space movement. The abnormalities may be related to loss of elastic recoil as well as small airway disease.

Flow volume loops are produced characteristically by changes which affect lung elasticity and airway resistance. The type of loop produced is a reflection of the rapidity of airflow in relation to the volume inspired and expired. Therefore, with expiratory resistance, small *expiratory* flow rates and volumes are produced, while with hyperinflation and airway disease, the total volume-flow is reduced in *both* inspiration and expiration.⁶

Lung scans have demonstrated striking changes in perfusion with regard to COLD, particularly combined inhalation and perfusion scans. The pattern of abnormality in asth-

ma is regional,⁷ whereas in emphysema it is diffuse and irregular.⁸ This points out why pulmonary hypertension is more apt to occur in the latter, and why hypercapnia and acidosis are least apt to occur in the former. It has been shown in asthma, that extreme airway obstruction, must occur before hypercapnia will be severe.⁹ The response to bronchodilators is an important aspect of differential diagnosis. Acute improvement of flow rates, lessening of lung volumes, and lessening of airway resistance is some proof of relief of bronchospasm. However, figures alone may not tell the story, because many patients may feel relief of symptoms when breathing quietly at rest, but maximal performance of spirometry shows little or no change following bronchodilators. The subjective response is important here, and may only be correlated with more specific tests of closing volumes, and frequency dependent compliance.

The effect of COLD on cardiac function is based on the roles played by hypoxemia, acidosis, perfusion impairment, pulmonary hypertension, surfactant formation, and coronary circulation. The sequence of events in recurrent asthma, from early bronchospasm to cor pulmonale has been well formulated. The most common sign of increased right heart work is compensatory tachycardia. Acute bronchospasm, as in asthma, may cause changes of acute cor pulmonale, but in most instances is reversible. Chronic cor pulmonale is the result of irreversible emphysema with or without bronchitis or bronchiolitis. So-called centrilobular emphysema has been implicated as a major factor in right heart failure because of the associated perfusion impairment and chronic hypoxemia. Chronic cor pulmonale is manifested by persistent electrocardiogram abnormalities, right ventricular heave, and pedal edema. Arrhythmias are not a hallmark of cor pulmonale and their occurrence should alert one to an acute problem such as infection with severe hypoxemia, acute hypercapnia with acidosis, recurrent pulmonary emboli, or digitalis toxicity.

The occurrence of left heart failure in COLD is a subject of considerable interest. Most ex-

planations are conjectural, but worthy of mention.¹⁰ One theory proposes that myocardial fibers from the right ventricle overlap onto the left ventricle, and in right heart failure, the left heart may also fail. Another explanation is based on cardiac metabolism, chronic hypoxemia and acidosis bringing about cardiac dysfunction by the alteration in biochemical processes. Finally, a vascular overload may occur onto the left side, as a result of shunting from bronchopulmonary connections, especially in the azygos vein system. If small vessel disease of the myocardium exists, this would tend to increase left heart work at the expense of decreasing heart muscle circulation and extraction of metabolites.

Whatever the mechanism, left-sided heart failure does occur in some patients with COLD. Its recognition may be difficult because the usual clinical and radiologic guidelines are distorted. Specifically, the chest films of combined COLD and left heart failure may fail to demonstrate the butterfly pattern of central venous congestion. This is due to the presence of localized emphysema in the upper or lower lobes, pressure or bullae, or the pressure of total, diffuse emphysema bilaterally. Vascular congestion may be confined regionally as a result of perfusion changes from tissue compression, and the picture is that of edema in the upper lobes only, or in the lower lobes alone. Evidence of interstitial edema or vascular congestion may not be present at all in bilateral emphysema, and the only location in which edema fluid may appear is in the pleural spaces. In some instances, auscultation is helpful, in that the wheezing of cardiac failure (cardiac asthma) is relieved by sitting up, and the breath sounds of a patient with emphysema are actually seen to improve or become louder with left heart failure. Serial pulmonary function studies may demonstrate a lessening of hyperinflation in emphysema and left heart failure, because of a superimposed restrictive component, and at the same time the FEV₁ may improve because of the reduction in FVC (forced vital capacity).¹¹

This discussion of COLD would not be com-

plete without mentioning the biochemical pursuit of specific patient problems. Immunologic and enzymatic abnormalities may cause an overlap of syndromes in COLD. The interplay of alpha₁ antitrypsin deficiency, diminished surfactant formation, decreased IGE, increased IGE, smoking, air pollution, and genetic inheritance cause a merging of asthma, bronchitis, and emphysema. As a result, emphysema may occur in a young asthmatic, hyperinflation may occur in viral infections, bronchitis may appear with hypersensitivity exposure, and allergic reactions occur with drugs and inhaled toxins. Children and young adults with any form of COLD should have protein electrophoresis, immunoelectrophoresis, alpha₁ antitrypsin studies, allergen challenges, and genetic determinations for prognostic purposes. Advice and management as pertains to smoking cigarettes, exposure to pollutants, occupation, upper respi-

ratory conditions, and allergy testing, may then be more intelligent and understandable.

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Role of Heredity in Intelligence

Intelligence evolves with age, and the question of how much heredity contributes to intelligence is unanswerable, says an article in the August, 1973 issue of *American Journal of Diseases of Children*.

"IQ tests assess current intellectual functioning and not innate intellectual capacity," says David Elkind, professor of psychology at the University of Rochester, New York, in the article. Human intelligence has to be thought of as closer to an evolving organ system than it is to a fixed physical trait.

Studies show the inadequacy of intelligence tests in infants. They can often reveal infants at the extremes—very bright or very dull—but fall down in the middle range as an indicator of future intelligence.

"Bright children are likely to stay bright, unless for whatever reason, they engage in activities destructive to mental prowess. A young-

ster with average ability can, by hard work, accomplish a good deal. He will never be a genius, no more than the person with a murmur is going to lose it, but he will make the most of what he has."

The author takes a dim view of "educational toys" now being sold to stimulate intellectual growth in infants. "One implication is that the child's mental growth may be permanently stunted if his parents do not purchase the materials." Actually, "Parents are almost sure to be wasting their money who purchase these materials."

Elkind adds that "This is not to say that infants should be deprived of mobiles or rattles or other toys to which they are attracted, and which they enjoy. What is important to remember is that the presence of such toys will not make the infant a genius any more than their absence will make him an imbecile."

In all the world's literature, this would appear to be the first reported case of liposarcoma from the parietal pleura.

First Case of Liposarcoma from the Parietal Pleura*

Victor D'Ambrosio, M.D./Murray Hill

Liposarcomas are relatively common in the subcutaneous tissues and in the retroperitoneal space and are in third place as the most common malignant tumor of the soft tissues. They seldom occur in the thoracic cavity, and are very rare in the mediastinum. McGoon, *et al.*³ found only 26 cases of previously reported mediastinal liposarcomas in the literature. At the Mayo Clinic only eight liposarcomas have been observed to arise from the mediastinum out of 300 cases on record. Pierson, *et al.*¹¹, in 105 cases of liposarcoma, found none in the mediastinum or thoracic pleura.

Although liposarcomas of the chest wall have been reported¹¹, there is no record of one arising from the parietal pleura. This is the first such case. Lipomas arising in the subpleural space have been reported.^{5, 14, 8} Liposarcomas can originate in pre-existing benign lipomas, but most malignant lipogenic tumors undoubtedly occur *de novo*.

Virchow was the first one to record a malignant tumor of the fat tissue in 1857. Since then Stout¹³ has reported four cases of liposarcoma. In 1960, Enterline, *et al.*⁷, reviewed 53 cases. Not one of these had arisen from the subpleural space, although several liposarcomas were seen in unusual locations such as hilum, mediastinum, and the submental region.

This case is of special interest because it represents a liposarcoma originating from the parietal pleura.

On July 28, 1964, a 52-year old male was admitted for treatment of a mental disorder. On admission, the

patient was noted to have a mass in the left upper anterior chest wall, at the level of the left anterior third rib, (Figure 1) 4 to 5 inches from the sternal

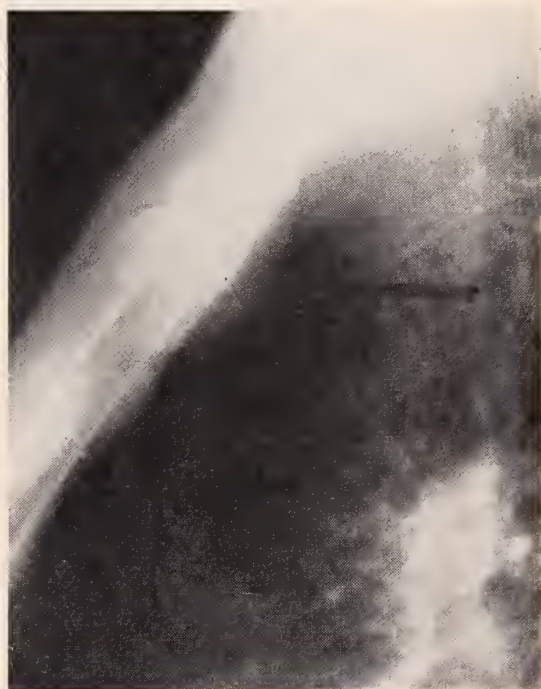


Figure 1—Note the well-defined mass of smooth contour protruding in the subpleural space on the lateral film.

border. It was smooth and protruded into the subpleural space. No history was available. On September 23, 1964, he underwent a left thoracotomy with *en bloc* excision of this well-circumscribed tumor and respective rib.

We found a well-circumscribed, fixed, non-tender mass at the level of the third rib. This was deeply seated and disappeared under the rib. (Figure 1) Complete work-up was done to rule out the possibility that this tumor might be metastatic. Bone marrow studies, gastro-intestinal series, gall bladder series, barium enema, intravenous pyelogram, and genitourinary tract were all normal.

*From the Surgical Department of Overlook Hospital, Summit, New Jersey.

Anatomy

The pleurae are two serous membranes, designed to insure excursion of the lungs over the walls of the thorax with minimal friction. The portion of the parietal pleura in contact with the ribs, the intercostal spaces, and the endothoracic fascia is called costal pleura. The costal pleura is attached loosely to the endothoracic fascia. (Figure 2)

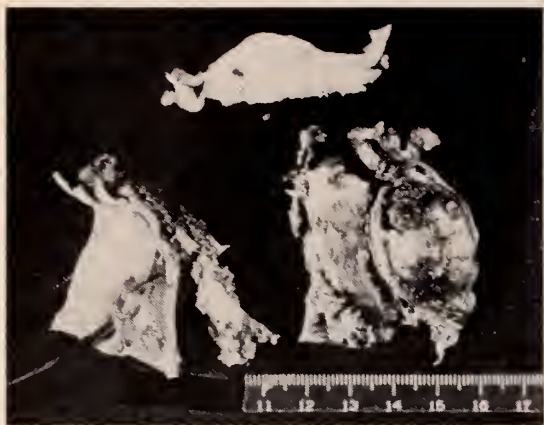


Figure 2—In the left upper specimen—parietal pleura intimately fused with liposarcoma.

In the left lower corner—the rib, the endothoracic fascia, and the tumor mass with the attached parietal pleura.

At the right, the specimen is a section of tumor with the pleura.

Histology

The pleura has the same structure as that of the serous membranes. Its superficial or endothelial layer is made up of flat irregular polygonal cells of 40 to 50 μ m. in diameter. The deep layer is thin on the pulmonary pleura. On the parietal pleura, it is much thicker, and in the deep part it is made up of a connective layer more or less rich in fat. This is subpleural, fibro-elastic tissue. It is well developed at the costal pleura, where its differentiation constitutes the endothoracic fascia of Luska.

On the mediastinal pleura, this sub-pleural tissue is much thinner, especially on the pericardium, where it solidly unites the two serosal cardiac and pulmonary layers. The endothoracic fascia is then a well differentiated and organized layer of the sub-pleural space of the parietal pleura, which is very abundant in fat. This is the site where the liposarcoma in our case originated. (Figure 2)

Pathology

The gross appearance of the liposarcoma varies from a yellow mature fat of gelatinous myxomatous consistency to a pink or hemorrhagic color. The liposarcomas have a very poor capsule, or, as in our case, have a multilobulated shape. Under the microscope the liposarcoma must be differentiated from inflammatory conditions to myxosarcomas. This points out the histologic variety and the degree of anaplasia of the liposarcoma (Figure 3). Stout¹³ has divided the liposarcomas into four histologic types. Enterline⁷ puts them into five groups specifically:

1. Well differentiated myxoids
2. Poorly differentiated myxoids
3. Lipoma like
4. Myxoid mixed
5. None myxoid

Well-differentiated liposarcomas are composed, in part, of well-developed, adult fat and intermingled with this is a myxoid tissue with stellate cells. Among these cells are spindle or stellate lipoblasts containing tiny vacuoles in their cytoplasm and occasionally partly developed "signet ring cells" with a larger vacuole containing lipid. No bizarre cells are seen. (Figure 3) Such tumors have often been called myxolipomas or lipomyxomas. These tumors do not metastasize, but like the myxomas, they infiltrate locally and (unless very widely and completely excised) they can recur locally, resulting eventually in death. The undifferentiated liposarcomas located in the superficial soft tissues have proved to be curable by radiotherapy, if they are 4 centimeters or less in diameter. This classification was found by some to be important with regard to the five-year survival rate and the incidence of metastasis between the three more benign and the two more anaplastic types.

Diagnosis

Cold abscesses and aneurysms may erode the chest wall and appear as firm tumors, causing temporary confusion. The effect of trauma can be misdiagnosed as condroma. Mesothelioma and bronchogenic carcinoma invading the chest wall should be considered in the differential diagnosis. Cartilagenous tumors of the ribs and of the sternum are seen infrequently, but they represent the most commonly encountered type of primary tumor of the chest wall. This case points



Figure 3—Lipoblasts containing tiny vacuoles in their cytoplasm and occasionally large vacuoles containing lipid.

out the need for complete system by system work-up. Bone marrow studies are essential steps before such tumors can be classified as originating primarily in the sub-pleural space.

Surgery

Under endotracheal anesthesia a transverse incision was made over the second intercostal space and carried down into the intercostal muscle layer. Here the tumor was found to be coming from under the third rib and to be attached to the parietal pleura. (Figure 2) The third rib was resected along with the tumor, muscle and skin from the costo-chondral junction to the mid-clavicular line. The pleural defect was closed by approximating the mediastinal pleura to the parietal pleura. A flap was developed from the pectoralis major muscle to bridge the defect without difficulty. A tube was placed in the chest cavity and connected to underwater seal drainage. The wound healed well and the patient was discharged for follow-up. Follow-up x-rays revealed no evidence of recurrence of tumor in the operative site. Lung fields were clear after surgery and liver function normal.

Summary

We have presented a case of liposarcoma arising from the parietal pleura. The value of the routine chest X-ray is re-emphasized. Wide en bloc excision of the low grade liposarcomas in this area without satellite lymph nodes enlargement would appear to be the treatment of choice.

There has been a divergence of opinion as to the degree of radio-sensitivity of liposarcomas. Pack¹¹ has reported that the highest cure rate was obtained when wide local excision was followed by irradiation. We elected to do wide local excision of the chest wall, ribs and pleura, but not to irradiate. We felt that

because of the wide and total excision and the histologic type of this liposarcoma, the patient needed no further treatment.

This patient is now five and a half-years post-operative and is apparently free of local recurrence and enjoying good health.

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Not readily thought, but well worth considering, is this syndrome of segmental infarction of the greater omentum

Primary Idiopathic Segmental Infarction of the Greater Omentum*

Case Report and Review of the Literature

**A. Gopalakrishnan, M.D. and
Eugene V. Parsonnet, M.D./Newark**

Primary idiopathic segmental infarction of the greater omentum is an uncommon cause of an acute abdominal condition that has been recognized with increasing frequency. It is characterized by necrosis and gangrene of a segment of the greater omentum with no known obvious cause. This condition should not be confused with torsion of the greater omentum which is a fairly well-established entity.

Johnson¹ is generally accredited with the first authenticated description of omental infarction in a case report in 1933. However Bush² actually had described a condition very much similar to this lesion as early as 1896. Wresinski³ and his associates, in 1956, outlined the diagnostic criteria that distinguishes primary idiopathic segmental infarction of the omentum from omental infarction due to other causes, such as torsion or strangulated inguinal hernia. According to the criteria laid down by them,³ omental idiopathic infarction is associated with: (a) infarction of idiopathic nature with no known etiologic factors, including torsion to initiate the process; (b) a

lesion of segmental nature, not associated with massive vascular occlusion; (c) a primary lesion in the omentum not secondary to diseases in the neighboring organs; and (d) typical findings on gross and microscopic examination. This condition has been recognized and reported in about 100 patients in the literature, though many more must have been seen and gone unreported.

Shea, *et al.*,⁴ in 1956, published their experiences and reviewed the literature and shortly thereafter Epstein, *et al.*,⁵ in 1968, reported on the review of 88 cases. Recognition of this entity is important as differentiated from other acute intra-abdominal conditions. There are no distinctive clinical features to help in making a correct diagnosis. A correct preoperative diagnosis seems to have been made only once by Halligan and Rabin⁶ in 1959, and has twice been suspected preoperatively.^{7, 8} This condition is usually diagnosed as acute appendicitis^{5, 9-12} or acute cholecystitis.^{5, 12, 13}

Purpose of this report is to present an additional case of primary idiopathic segmental infarction of the greater omentum, and to discuss its pathogenesis and the clinical manifestations of this entity.

*From the Department of Surgery, Newark Beth Israel Medical Center where Dr. Gopalakrishnan was resident in surgery, and the College of Medicine and Dentistry of New Jersey, New Jersey Medical School, Newark, New Jersey. Dr. Gopalakrishnan is presently affiliated with Ferguson Clinic in Grand Rapids, Michigan.

A 45-year-old, well-built, healthy, female housewife presented late in the evening with an acute episode of right upper quadrant pain. Six years ago she underwent radical mastectomy for carcinoma of the right breast. Seen in the emergency room this time, she was in no acute distress. Her abdomen was soft.

On palpation there was tenderness in the right upper quadrant with guarding but no rigidity. She was admitted with a diagnosis of acute cholecystitis. The SMA₁₂ and EKG were normal. Urinalysis was normal. The hemoglobin was 12.4 and hematocrit 40 per cent. The WBC was 13,200 with a slight shift to the left. Temperature was 100. Later that day she was operated on with a preoperative diagnosis of subacute cholecystitis and at laparotomy her gallbladder was normal. Beneath the point of maximum tenderness, she had a globular, necrotic, gangrenous mass in the greater omentum measuring 4 centimeters in diameter unassociated with any twist or volvulus of the greater omentum. This gangrenous omental tissue was excised with a margin of surrounding normal omentum. (See figure) Microscopic study revealed congestion and



thrombosis of veins with hemorrhagic extravasation into the normal fat with a zone of mild inflammatory reaction containing monocytes and polymorphonuclear cells and plasma cells.

The patient made a smooth, uneventful recovery and was discharged from the hospital in one week.

Most of the clinical features of this condition have been obtained from Shea, *et al.*,⁴ and Epstein⁵ and his associates. Unlike active cholecystitis, which is commoner in females, segmental idiopathic infarction of the omentum seems to occur more frequently in males, the ratio being about three to one. It has occurred in a child of three and in an individ-

ual of 72. In Perry's series¹⁰ 14 per cent of his cases appeared in the pediatric group. The commonest presenting complaint is abdominal pain. The pain was located on the right side of the abdomen in 84 per cent of the patients, in the right lower quadrant in 3 per cent and in the epigastric region in 2 per cent. It is para-umbilical in 2 per cent and generalized in 1 per cent. Nausea was present in 26 per cent of the series and vomiting in 20 per cent. Seventeen per cent of the patients had diarrhea at the time of the onset of the infarction, and 25 per cent had constipation. More than half of the patients were afebrile. A small proportion had a mild elevation of temperature, about 1.5 to 2 degrees above normal, and a still smaller percentage (about 8 to 10 per cent) had an elevation more than 2 to 4 degrees. Leukocytosis was detected in about half the series. The WBC was normal in 40 per cent and between 14,000 and 18,000.

A correct preoperative diagnosis is seldom made. The usual preoperative diagnosis was acute appendicitis in 63.9 per cent, cholecystitis in 21.7 per cent, omental infarction in 3 per cent, perforated ulcer in 2.4 per cent, carcinoma of the cecum in 2.4 per cent, diverticulitis in 2.4 per cent, splenic infarct in 1 to 2 per cent, and retroperitoneal tumor in 1.2 per cent.

As reported by Harris, *et al.*¹¹ most of the patients are hypersthenic individuals.

Cases have been reported in which primary segmental infarction of the omentum was associated with underlying predisposing disorders, leading to thrombosis of the omental vein. These include (a) superior mesenteric venous thrombosis (14), (b) Buerger's disease (15), (c) polycythemia (16). At present, their inter-relationship is thought to be accidental.

Pathogenesis—Several attractive theories have been given for the occurrence of idiopathic segmental infarction of the greater omentum. Basically, the final pathological lesion seems to be a venous occlusion and thrombosis of that segment which is involved in the infarc-

tion. Other theories as to the possible etiology of this entity include:

1. Embryologic abnormalities (Egar),¹⁷ (Epstein).⁸
2. Hemorrhage into the omentum (Harris, *et al.*).¹¹
3. Dependency of the omentum with venous congestion (Pines).¹⁶
4. Venous disruption due to sudden increases in interperitoneal venous pressure (Toten).¹⁸
5. Excessively fatty omentum (Delaurentis, *et al.*).¹²

Regardless of the cause, infarction is usually segmental in nature. It occurs frequently on the free border, involving a 2 to 10 centimeter area. The infarction is grossly edematous, hemorrhagic, lustreless with purple, dark red, or black discoloration. On microscopic examination there is venous congestion and hemorrhage into omental fat with necrosis and thrombosis of the venous channel. The cellular pattern is characterized by the presence of polymorphonuclear and mononuclear cells.

Summary

Primary segmental infarction of the greater omentum is a rare clinical entity, characterized by the acute onset of abdominal pain with the clinical findings of peritoneal irritation, and is usually misdiagnosed as acute appendicitis or cholecystitis. The literature has been reviewed.

The frequent occurrence on the right side and adherence of the infarcted omentum to the cecum are best explained on an embryologic basis. Surgical treatment with excision of the infarcted omentum is the treatment of choice.

This condition should be borne in mind in the differential diagnosis of the cause of acute abdominal pain.

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Warning: May be habit forming. **Precautions:** Exercise caution in moderate to severe hepatic disease; withdrawal in drug dependence or the taking of excessive doses over a long period, to avoid withdrawal symptoms; elderly or debilitated patients, to avoid possible marked excitement or depression; use with alcohol or other CNS depressants, because of combined effects. **Adverse Reactions:** Drowsiness at daytime sedative dose levels, skin rashes, "hangover" and gastrointestinal disturbances are seldom seen. **Usual Adult Dosage:** For daytime sedation, 15 mg. to 30 mg. t.i.d. or q.i.d. For hypnosis, 50 mg. to 100 mg. **Available as:** Tablets, 15 mg., 30 mg., 50 mg., 100 mg., Elixir, 30 mg. per 5 cc. (alcohol 7%), BUTICAPS® [Capsules BUTISOL SODIUM (sodium butabarbital)] 15 mg., 30 mg., 50 mg., 100 mg.

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Each tablet and each 5 ml. of liquid contain:
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in irritable colon**

IMPORTANT INFORMATION: This is a Schedule V substance by Federal law; diphenoxylate HCl is chemically related to meperidine. In case of overdosage or individual hypersensitivity, reactions similar to those after meperidine or morphine overdosage may occur; treatment is similar to that for meperidine or morphine intoxication (prolonged and careful monitoring). Respiratory depression may recur in spite of an initial response to Nalline[®] (nalorphine HCl) or may be evidenced as late as 30 hours after ingestion. LOMOTIL IS NOT AN INNOCUOUS DRUG AND DOSAGE RECOMMENDATIONS SHOULD BE STRICTLY ADHERED TO, ESPECIALLY IN CHILDREN. THIS MEDICATION SHOULD BE KEPT OUT OF REACH OF CHILDREN.

Indications: Lomotil is effective as adjunctive therapy in the management of diarrhea.

Contraindications: In children less than 2 years, due to the decreased safety margin in younger age groups, and in patients who are jaundiced or hypersensitive to diphenoxylate HCl or atropine.

Warnings: Use with caution in young children, because of variable response, and with extreme caution in patients with cirrhosis and other advanced hepatic disease or abnormal liver function tests, because of possible hepatic coma. Diphenoxylate HCl may potentiate the action of barbiturates, tranquilizers and alcohol. In theory, the concurrent use with monoamine oxidase inhibitors could precipitate hypertensive crisis.

Usage in pregnancy: Weigh the potential benefits against possible risks before using during pregnancy, lactation or in women of childbearing age. Diphenoxylate HCl and atropine are secreted in the breast milk of nursing mothers.

Precautions: Addiction (dependency) to diphenoxylate HCl is theoretically possible at high dosage. Do not exceed recommended dosages. Administer with caution to patients receiving addicting drugs or known to be addiction prone or having a history of drug abuse. The subtherapeutic amount of atropine is added to discourage deliberate overdosage; strictly observe contraindications, warnings and precautions for atropine; use with caution in children since signs of atropinism may occur even with the recommended dosage.

Adverse reactions: Atropine effects include dryness of skin and mucous membranes, flushing and urinary retention. Other side effects with Lomotil include nausea, sedation, vomiting, swelling of the gums, abdominal discomfort, respiratory depression, numbness of the extremities, headache, dizziness, depression, malaise, drowsiness, coma, lethargy, anorexia, restlessness, euphoria, pruritus, angioneurotic edema, giant urticaria and paralytic ileus.

Dosage and administration: *Lomotil is contraindicated in children less than 2 years old.* Use only Lomotil liquid for children 2 to 12 years old. For ages 2 to 5 years, 4 ml. (2 mg.) t.i.d.; 5 to 8 years, 4 ml. (2 mg.) q.i.d.; 8 to 12 years, 4 ml. (2 mg.) 5 times daily; adults, two tablets (5 mg.) t.i.d. to two tablets (5 mg.) q.i.d. or two regular teaspoonfuls (10 ml., 5 mg.) q.i.d. Maintenance dosage may be as low as one fourth of the initial dosage. Make downward dosage adjustment as soon as initial symptoms are controlled.

Overdosage: Keep the medication out of the reach of children since accidental overdosage may cause severe, even fatal, respiratory depression. Signs of overdosage include flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia and respiratory depression which may occur 12 to 30 hours after overdose. Evacuate stomach by lavage, establish a patent airway and, when necessary, assist respiration mechanically. Use a narcotic antagonist in severe respiratory depression. Observation should extend over at least 48 hours.

Dosage forms: Tablets, 2.5 mg. of diphenoxylate HCl with 0.025 mg. of atropine sulfate. *Liquid*, 2.5 mg. of diphenoxylate HCl and 0.025 mg. of atropine sulfate per 5 ml. A plastic dropper calibrated in increments of 1/2 ml. (total capacity, 2 ml.) accompanies each 2-oz. bottle of Lomotil liquid.

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Advances in the Surgical Treatment of Pain*

**George A. Zazanis, M.D.,
Henry R. Liss, M.D. and
Allan L. Gardner, M.D./Chatham**

Surgical treatment of pain began in 1912 when Spiller suggested to Martin¹ that the anterolateral tracts of the spinal cord be transected for the relief of pain. This was possible after the long and difficult accumulation of basic anatomic knowledge by scientists for application by these clinicians.

Frazier² transected the trigeminal roots for pain due to tic douloureux. Foerster³ demonstrated the root distribution of sensation in patients clinically and treated pain with spinal root section. Dogliotti⁴ introduced the "chemical surgery" of peripheral nerve strictures by injecting alcohol over spinal cord roots to relieve pain.

By 1950 these methods were standardized and documented in well-written volumes.^{5,6} Therefore a reasoned approach could be developed with only relatively minor deviation. Neurosurgeons treated pain with methods they easily understood and technics that could be, for the most part, quickly mastered. A patient with carcinomatous metastasis, for example, at that time could be evaluated and open cordotomy done for relief of lower extremity pain. Chemical rhizotomy could be used to treat sacral pain secondary to local pelvis metastases. Causalgias were treated with sympathectomies with imperfect, but sometimes acceptable, results. With the refinements of the original concept of treatment by Francois-Frank⁷ and description of this disease by

Mitchell,⁸ treatment of trigeminal neuralgia was greatly refined and there then was a regular progression of drug therapy including dyphenylhydralion, and more recently Tegretol®, progressing to alcohol nerve blocks and finally to surgical resection. Multiple laminectomies often have not relieved intractable sciatica. Frontal lobotomy, in patients with pain resistant to any forms of treatment, was carried out⁹ but surely was a testimonial to the defeat of the neuroanatomical approach. The patient with carcinomatous metastasis was too often not a candidate for open cordotomy because of the inherent surgical and anesthetic risks. Elderly infirm patients with trigeminal neuralgias could not undergo the refined Frazier technic for trigeminal retrogasserian rhizotomy. Many causalgias will not respond to sympathectomies. Chemical rhizotomies always lead to an uncertain degree of neurologic defect such as bowel or bladder incontinence. The undesirable side effects of frontal lobe syndrome following lobotomies are medically undesirable and have sparked a philosophic debate which continues. In the last decade, newer more physiologically oriented modalities have arisen, again after the accumulation of basic physiologic knowledge attained prior to that time. The trend has developed to avoid the higher risk open surgery and perform needle-oriented methods or the use of electrically-activated stimulating procedures.

In this context, then, the following methods are described and their rationale discussed

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and our own program of treatment is presented.

1. *Percutaneous cordotomy*. This was first described by Mullan¹¹ and has been refined by Rosomoff and Lin.¹² Our technic has been developed over the last six years and we have combined the methods of Lin¹² and a refinement of Mullan¹⁴ since it was recognized quickly that the delayed neurologic effects of the radioactive needle were not acceptable. For our purposes, the case of the anterior approach and the availability to us of a direct current unit seemed to offer a good practical combination and we find that it has worked well. The procedure is done usually in the x-ray department under local anesthesia with Innovar[®] infusion assistance. Prior to each lesion, electrostimulation is applied for an attempt at neurophysiologic confirmation of the correct placement of the needle tip into the lateral spinothalamic tract and neurologic examinations are conducted frequently. The procedure is tolerated by even the most cachectic patients and we have had no operative mortalities. There has been a definite increase in the numbers of patients available for cordotomy. The serious neurologic side effects of pulmonary insufficiency, extremity, and bladder paresis are probably smaller than open cordotomies and the ratio of successful "acceptable, good to excellent" result somewhat smaller. Percutaneous cordotomy is probably the superior method even for the patient who can tolerate the open surgery and we have, for the most part, abandoned the direct surgical attack on the spinal cord. Results are displayed in Table I.

Table 1		Number of Patients
Carcinoma with metastases	results poor, complication, technical failure	32
	fair	4
	good, excellent	11
	Multiple disc syndrome	17
Multiple disc syndrome	results poor, technical failure, complication	3
	fair	3
	good, excellent	—
Arthritis	results poor, technical failure, complication	—
	fair	2
	good, excellent	1
		1

More than half the patients with carcinomatous metastasis achieved relief that was commensurate with the disease, the limited prognosis, and the risk of the procedure. Percutaneous cordotomy maintains its place in the treatment of pain especially in unilateral lower extremity pain secondary to carcinomatous metastases in the failing patient. However, the procedure is not benign. Complications prevent its application effectively to many patients with bilateral pelvic pain and to patients with benign disease.^{15, 16}

2. *Subarachnoid cold saline wash*. In 1969 Hitchcock¹⁷ and more recently Battista¹⁸ have reported the use of a lumbar wash with cold saline. We have used this for the past year in patients with back and bilateral leg pain, usually due to cancer, as an initial treatment method rather than the higher risk cordotomy. We have had no neurologic sequelae, but there is a high incidence of failure to relieve pain. Nevertheless this may provide a preterminal patient some comfort with little risk. The patient is taken to the operating room and given a general anesthetic (otherwise the injected saline would cause much pain). A saline slush solution at 5 degrees centigrade or below is injected in 30 cc increments to a total of 90 to 120 cc. Results are categorized in Table II.

Table II		Number of Patients
Carcinoma with metastases	results poor	7
	fair	1
	good	4
	Arthritis	2
Arthritis	results good	1
		1

The series is small and most patients with carcinoma died within three months after the procedure. Following Battista's results, our results are probably similar. The cold saline seems to alter the smaller pain-conducting fibers of the caudal nerve roots only temporarily which probably accounts for the transient effects of the wash. Some reports of paraplegia are noted which may be due to higher pressure points on the spinal cord be-

cause of metastatic disease.³⁴ Our lack of neurologic sequelae gives this procedure a higher priority than chemicals such as alcohol or phenol in the neurologically intact patient. However, in the patient with impaired bladder and bowel function, the alcohol or phenol is probably superior because of the more permanent and predictable result for pain relief.

3. *Electrothermal trigeminal rhizotomy.*

Sweet and Wepsic¹⁹ have recently reported the use of radio-frequency induced lesion of the gasserian ganglion and its roots. Excellent high quality results are reported with long lasting pain relief in over 90 per cent of patients with minimal neurologic sequelae.²⁰ It is probable that this method is superior to Frazier's retrogasserian rhizotomy in that a more accurate lesion can be made with less operative hazard and anesthetic risk to the patient, allowing the poor operative risk patient to be treated. We have operated on seven patients in the last three months with excellent results in six patients. In one patient, the procedure had to be terminated because of a hematoma development in the cheek but she had satisfactory results presumably due to local trauma to the third division of the trigeminal nerve. We have had no neurologic sequelae beyond the anesthetic changes in the nerve distribution. In our patients, we used direct unipolar current rather than the radiofrequency generator current to produce a lesion. Bipolar square wave stimulus has been applied as the neurophysiologic monitor. This is combined with frequent neurologic examinations. The procedure is done in the x-ray department using a combination of local and Innovar[®] anesthesia. Our early results are very encouraging.

4. *Posterior facet rhizotomy.* The treatment of the patient with intractable sciatic pain following multiple laminectomies (with or without fusion) has remained a major problem in most neurosurgical and orthopedic practices. As we have shown in our cordotomy cases, the risks of that procedure do not justify the poor results. We have *not* noted definitive results with injection of intrathecal

steroids. The occasional rhizotomy we have performed has been successful only in the unusual patient with a clinical syndrome pointing to a well localized single nerve root.

Reese²¹ and Shealy²² have reasoned that many lumbosacral pain syndromes are due to facet joint instability resulting in impingement on the local nerve to this anatomically labeled joint of Luschka. Under local anesthesia, Shealy applies a radiofrequency current through an insulated needle with a 7mm. bared tip. He has reported a very high ratio of good results for a few months follow up. No published results are available. Reese²¹ has followed these cases for twelve years and uses a percutaneous knife. Several hundred patients have been treated with excellent results according to this Australian surgeon. We have treated five patients since November, 1972. Although it is much too early to come to a conclusion since we may be having some technical difficulties, we are interested but not yet enthusiastic.

5. *Functional neurological stimulation.*

Melzak and Wall²³ proposed a new theory that activity in the beta fibers at the first synapse caused an inhibition of conductivity of pain by the smallest "C" or gamma-delta fibers. Wall and Sweet²⁴ then, using this concept, applied electrical current to a peripheral nerve for the treatment of pain. Shealey, *et al.*^{25,26} then applied current directly over the spinal cord by implanting a device with an electrode placed over the dorsal column and delivering the current through a subcutaneous jack. Eventually, the electronic device was refined so that now it is implanted entirely subcutaneously. A radiofrequency receptor capsule is connected to platinum electrode footplate in one unit and the footplate is placed over the spinal cord. Radiofrequency current is generated by a small battery powered box and carried by a separate antenna which is placed over the receptor capsule. In the past two years we have implanted five devices in patients who have had multiple disc surgery. All have had psychiatric diagnosis and treatment.

1. A 35-year-old woman previously had stimulators implanted. She underwent surgery by us on May 25, 1972 and to date maintains almost constant use. She has had an excellent result.

2. A 35-year-old woman became paraplegic following a laminectomy but still had pain. On January 14, 1971 a stimulator was implanted with indefinite relief initially. The stimulator failed and she refuses a revision. She remains addicted and psychotic.

3. A 46-year-old woman had a stimulator implanted on May 17, 1971 with some moderate benefit. She still uses the device but has had a second laminectomy.

4. A 44-year-old man had the device implanted on April 7, 1972 and used it regularly but continued to require narcotics in high doses. He then abruptly went to a session of acupuncture in New York a few months ago and was totally relieved of lower extremity pain. He says he still needs the narcotics for back pain at the implantation site.

5. A 25-year-old woman had a device implanted on October 7, 1971. It worked well for about one year but then failed and may need revision.

We cannot comment on the success of the procedure with so few cases. It should be noted however, that no one has a very large series and that most of these patients have had multiple disc surgery and have become "emotionally disabled." The electronic equipment has been further refined in the past year so that failures due to reactive buildup of scar about the footplate electrode should be diminished. Scar reaction as best we can determine has played a part in our two failures. The technic is limited because the patient is subjected to a delicate surgical procedure requiring a laminectomy with the inherent risk of spinal cord damage. He may be committed to the permanent use of a device. Thus the "problem" is not eliminated. However, it has a place of last resort in cases of intractable pain. For the patient with phantom limb pain, it is an excellent method of treatment.²⁷ Hosobuchi, *et al.*²⁸ stimulated pre-operatively through an electrode introduced percutaneously over the spinal cord. They could not determine which patient might benefit from the permanent implantation but felt they were able to evaluate those patients who would accept the accompanying tingling dyesthesiae noted with the device.

Burton^{29,30} has applied an electrically conducting paint, an "epiductive electrode" to use as

a testing device and, in some cases, to treat pain. Through the kindness of Mr. Roger Avery of Avery Labs Inc., a stimulator prototype for transcutaneous stimulation has been made available to us. The "epiductive paint" is not yet available so that we have applied current through the commercially available monitoring electrodes used in ordinary coronary units. In Table III we have outlined our results.

Table III

Age		Dx	Result
Outpatients			
1.	27	disc	none
2.	65	mastectomy	none
3.	29	meralgia	
		paresthetica	none
4.	45	disc	none
5.	65	thalamic syndrome	worse
6.	25	neuroma	none
7.	33	carpal tunnel	worse
8.	63	vein thrombosis	indefinite
9.	46	disc	none
Age			
Inpatients			
1.	20	disc	none
2.	62	carcinoma	indefinite
3.	29	causalgia	excellent

We can see that the patients who were worsened would not be candidates for the surgery and patients with the dramatic relief would be and were recommended. The others seem to get no relief but did not mind the current sensation. Although we have not been able to duplicate the enthusiastic reports of others³⁰ we are continuing our own evaluation.

Stereotaxic Surgery—The occasional patient who is so disabled with pain and with whom all methods have failed (as can happen with any pain-relieving procedure) comes to the neurosurgeon. Now an effort to alter the personality or psyche of the patient is recommended. We do not do lobotomies. The stereotaxic technic is available, however.³¹ We have performed a combination of basal thalamotomy and dorsomedian thalamotomy for patients with intractable sciatic pain and one patient with thalamic syndrome. It is difficult to assess results in these patients, but some ameliorating effect can be reasonably expected.

A more recent stereotaxic approach has been

studied with the implantation of chronic stimulating electrodes in the brain into the caudate nucleus³² and the thalamus.³³ This offers some promise in cases where other methods have failed and in the more primary treatment of head and neck pain.

In conclusion, percutaneous cordotomy and cold saline wash are good methods to relieve pain of the back and legs due to metastatic cancer. Electrothermal trigeminal rhizotomy promises to be an excellent surgical treatment of tic douloureux. We have not yet completed a large series of patients undergoing facet rhizotomy, dorsal column stimulator implantation, or the use of "epiductive" electrodes. The enthusiastic initial reports are to be questioned but we feel encouraged to proceed with more cases.

Chronic electrode implantation is still under primary investigative study and we are presently involved in that effort.

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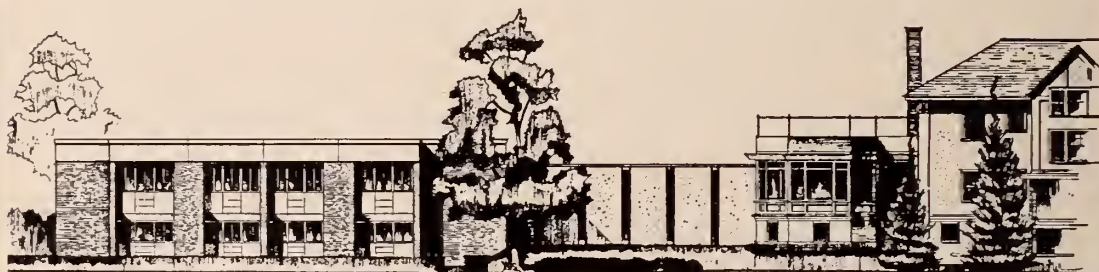
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DESCRIPTION: Methyltestosterone is 17 β -Hydroxy-17-Methylandrosta-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunuchism. 2. Male climacteric syndrome when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Postpubertal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of cli-

macteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be dis-

continued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpubertal cryptorchidism, 30 mg. **HOW SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250.

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The Allergic Reaction

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Frederic A. Schulaner, M.D./Westfield

Our purpose is to examine the immunologic mechanism of those common atopic diseases which are seen in the physician's office: bronchial asthma and allergic rhinitis. The pathological findings of atopic diseases are rather similar. The differences are related to the capabilities of a particular organ to respond to the chemical mediators released, and to secondary complications. The major pathophysiological changes are edema, smooth muscle spasm, and mucus production. Symptoms depend on the location of the reaction, and its intensity.

As far as we know, these pathological changes are due to potent substances of small molecular weight released at the site of the allergic reaction. These are "chemical mediators." The most extensively studied of these mediators is histamine. In asthma, it will contract the smooth muscle of the bronchial tree, increase the vascular permeability of the bronchial wall with subsequent edema formation, and increase bronchial gland secretions. In allergic rhinitis, histamine will cause edema of the nasal mucosa, rhinorrhea, sneezing, and itching. The increase in vascular permeability, a uniform finding in all atopic reactions, is due to histamine's activity at the post-capillary venule (20 to 30 micra diameter). Histamine causes endothelial cells to separate, exposing the basement membrane of the vessel which is freely permeable to plasma, proteins, and fluids.

SRS-A, the slow reacting substance of anaphylaxis, is now generally thought to be, along

with histamine, responsible for bronchoconstriction in asthma. SRS-A is an ill-defined acidic substance that associates with lipids. It is not a protein or poly-peptide. Using resected lung tissue of an asthmatic patient, a comparison has been made of the bronchoconstrictive action of histamine and SRS-A. Histamine was found to predominate during the first three minutes after antigenic challenge. But by eight minutes, 80 per cent of the bronchoconstriction was due to SRS-A. The action persisted for hours. As far as it is known, SRS-A's only biologic activity is smooth muscle contraction. Its physiologic role is unknown. No SRS-A is found in sensitized lung before antigenic challenge.

The chemical structure of antihistamines is similar to histamines, and these drugs form a reversible union with the receptor site of histamine at the end organ. This action is called "competitive inhibition." But this group of drugs also has actions elsewhere, and their known side effects reflect their activity in the central and autonomic nervous systems. Once histamine has reached its receptor site on the effector cell, antihistamines are useless. Antihistamines must occupy the site first. This leads to several important therapeutic considerations.

First, use antihistamines when one anticipates atopic allergic reactions. For example, if the patient is allergic to dogs, and knows he is about to visit a home where there are dogs, it would be well to pre-medicate the patient with antihistamines. Second, if allergic symptoms are prolonged, one should use antihistamines regularly, rather than "as need-

ed." Most important, in emergency situations (anaphylactic reactions), antihistamines are *not* the drug to use first. Rather, epinephrine, that acts by other receptors to antagonize the action of histamine, should be used for its immediate effect.

Antihistamines are ineffective in asthma. They will not inhibit SRS-A which is one of the prime mediators of bronchial asthma. Also, the drying action of the mucus may be detrimental during an asthmatic attack.

How do histamines and the other potent mediators become activated? Where do they come from? This is the very heart of the immunologic reaction. Pre-formed histamine is found in tissue mast cells and basophiles. There is a particularly high concentration of mast cells in the skin, respiratory tract, and intestinal mucosa. These cells are found in the connective tissue surrounding small blood vessels. Mast cells contain the enzyme histidine decarboxylase which converts histidine to histamine. The histamine so produced is stored in granules in the cells. In these granules, histamine is bound by weak electrostatic forces to protein-heparin complexes. Attached to the surface of these mast cells is a specific type of antibody. This antibody preferentially binds to cells in tissues rather than in the vascular spaces. Because of this unique property, these antibodies are called "homocytophilic." Almost all belong to the immunoglobulin class IgE. Everyone has this type of antibody attached to his or her mast cells, whether they are atopic, or not. Its physiologic role is entirely speculative, although it has been suggested that IgE aids IgA in surface protection.

One of the most significant developments in immunology, during the past few years, has been the elucidation of the immunoglobulin mediating atopic allergic reactions. That such an antibody does exist has been postulated since the 1920's, but it could be found and measured only by indirect methods, such as skin testing with specific antigens, either directly or by passive transfer. The antibody

was termed "skin sensitizing antibody," or "reagin." This antibody is of the IgE class. IgE does not activate complement, nor does it cross the placenta. Therefore, an infant does not inherit the atopic allergies of its mother. It is found in the serum in a concentration of 0.0003 mg. per ml., as compared to 12 mg. per ml. of immunoglobulin G. There is an increased concentration of the antibody in the serum of many patients with atopic dermatitis, bronchial asthma, allergic rhinitis, as well as parasitic infections.

The Fc Fragment (that part of the molecule opposite the antigen combining sites) of the IgE homocytophilic antibody is attached to tissue mast cells and basophiles. When, in atopic patients, an allergen to which the patient is sensitive reacts with the combining sites, structural changes occur in the Fc Fragments. These altered Fc Fragments now become bridged with neighboring Fc Fragments which have also undergone structural changes following reaction to an allergen. In the laboratory, Fc Fragments can be bridged without combining with any antigen and the release of histamine occurs as in a typical allergic reaction. This alteration of the Fc Fragment probably accounts for the functioning of all types of antibodies. These bridged Fc Fragments activate an enzyme within the cell. This enzyme, which appears to be esterase, causes changes in the properties of the cell membrane. The membrane now becomes increasingly permeable to calcium. This calcium influx into the mast cell is coupled with active secretion of histamine-laden granules, from the cell. This calcium influx-secretory coupling is found in other areas of the body, not necessarily related to immunological events. When these granules are free in the extra-cellular fluid, sodium displaces the histamine from its complex of heparin in the granule, and the free histamine now acts on its effector cells.

Mast cells and basophiles are not destroyed by this reaction. Mast cells do not explode, strewing their granules about, as was once believed. Vacuoles are found where the granules once were, and after a time, the histamine

decarboxylase will replace the histamine stores.

What is the origin and mechanism of release of SRS-A? We have no definite answer. We do know that it is not found until after an antigen antibody reaction. In monkeys, and presumably humans, IgE mediates release of SRS-A from lung tissue.

Suppose a patient is seen with sneezing, rhinorrhea, and itching of the eyes and nose from mid-August until the beginning of October. Ragweed pollen is suspected and a small amount of a dilute solution of ragweed is injected into the skin. The antigenic component of ragweed combines with the antibody-combining sites of the IgE antibody bound to the tissue mast cell, which has been previously sensitized to ragweed. The antigen antibody reaction causes structural changes in the Fc Fragment, which is attached to the cell. The altered Fc Fragment activates an enzyme system causing secretion of histamine laden granules from the cell. The free histamine acting locally on blood vessels causes vasodilation (erythema), and increased vascular permeability (wheal) all within ten minutes, confirming our clinical diagnosis of ragweed sensitivity.

Study of the homeostatic mechanisms of the shock organs of allergic diseases have given us a greater understanding of the diversity of stimuli that could potentially precipitate symptoms in these patients, as well as insight into the possible underlying defect of these diseases. In the lung, the calibre of the bronchi and bronchioles is under the control of the autonomic nervous system. A cholinergic response *via* the vagus causes smooth vessel contraction and bronchial gland stimulation (the para-sympathetic response). Sympathetic responses *via* the adrenergic impulses produce smooth muscle relaxation and inhibition of bronchial glands. Adrenergic impulses in other organs, such as skin, mucus membranes, and abdominal viscera will cause bronchoconstriction and smooth muscle contraction. Why should there be such opposing reactions with the same group of neuromedi-

ators? The theory (which has been subsequently confirmed) is that receptor sites differ on target cells. Stimulation of one type of receptor causes contraction of smooth muscles and blood vessels, while stimulation of another type of receptor causes inhibition of muscle spasm, leading to relaxation and vasodilation. The receptors causing stimulation of smooth muscles are termed "alpha receptors." Those receptors causing inhibition, are called "beta receptors."

Norepinephrine is the most potent alpha adrenergic agent with little or no inhibitory activity. Isoproterenol is the reverse, with no stimulating activity but with powerful inhibitory action. Hence, it is excellent as a bronchodilator. Epinephrine is relatively potent as both a stimulating and inhibitory agent.

Beta receptors can be subdivided into Beta I receptors in the heart and fat tissues, and Beta II receptors in the bronchi and peripheral vasculature. Two new drugs have been studied that have almost complete Beta II activity, with little or no Beta I action. These drugs are Salbutamol and Orciprenaline, both of which generally are used in the aerosolized form. The specificity of such drugs with non-cardiac effects would presumably decrease the incidence of unwanted cardiovascular symptoms which occur when drugs such as epinephrine and isoproterenol are administered to asthmatic patients. Whether it will overcome the problems associated with the overuse of isoproterenol aerosols is not yet known.

It has been suggested that a basic defect in asthma is a relative Beta adrenergic blockade. Maintenance of the normal calibre of the bronchial tree requires a continual homeostatic adjustment of the cholinergic and Beta adrenergic impulses. Normally, any factor that would tend to cause bronchoconstriction would be opposed by Beta adrenergic activity. If, however, there is a reduction of the functioning Beta adrenergic receptor sites, any factor tending to cause bronchoconstriction would be relatively unopposed, with resultant wheezing and dyspnea. This would

certainly go along with the bronchial hyperactivity to a broad spectrum of immunologic, psychic, infectious, physical, and chemical stimuli so typical of the asthmatic. We certainly would not want to cause even further blockade, so one must never use drugs such as propranolol, which is both a Beta I and Beta II blocking agent, to treat arrhythmias or angina, in any patient who has a history of asthma.

The receptor sites of several hormones, including the catecholamines, have been found to be a cell membrane enzyme called adenylyl cyclase. This enzyme is a lipoprotein and has been found in all animal cells so far examined, except for non-nucleated red cells. The enzyme, once activated, catalyzes adenosine triphosphate (ATP) to cyclic 3'5' AMP. This active agent now carries out the work of the hormone by modifying intra-cellular enzyme activity and permeability barriers. In the case of the Beta adrenergic receptors of the bronchial tree, when activated by the catecholamines, epinephrine or isoproterenol, the cyclic 3'5' AMP will cause bronchial relaxation and inhibition of granular secretions. Recently, it has been found that the activated cyclic 3'5' AMP cell will inhibit the release of histamine from mast cells. Cyclic 3'5' AMP is inactivated by a phosphodiesterase that opens the 3'5' phosphate bond, leaving the inactive 5' AMP. Like adenylyl cyclase, the phosphodiesterases have been found in all tissues.

Theophylline is effective in treating bronchial asthma, and it will often work after the patient fails to respond to multiple injections of epinephrine. This drug is a potent inhibitor of the above phosphodiesterase. Thus, there will be an increased concentration of cyclic 3'5' AMP with resulting bronchodilation. This intracellular site of action is beyond the adenylyl cyclase Beta receptor, so the effects of any Beta adrenergic blockade would be mitigated.

We have not discussed yet the adrenocorticosteroids. We are on more solid ground listing the reasons why they do not work than how

they do. Corticosteroids do not inhibit antibody production in doses used in man. They will not prevent the union of antigen in antibody; they do not prevent histamine release following such a union; and they do not change response of smooth muscles and blood vessels to histamine. But why is it so effective in alleviating symptoms of atopic allergic reactions? The usual explanation is that it has an "anti-inflammatory" effect. That is, steroids, in pharmacological doses, will suppress edema, fibrin deposition, capillary dilatation, and chemotaxis. It stabilizes the lysosomal membranes of polymorphonuclear leukocytes. This is important in other types of allergic disease. There may be other explanations—corticosteroids seem to support the normal response of target cells to the catecholamines. In the absence of any glucocorticoids there is an increased receptor threshold to the catecholamines, that is, a Beta adrenergic blockade. On the other hand, Beta adrenergic blockade in experimental animals could be overcome by excess exogenous steroids. So it is possible that the action of the corticosteroids, at least in bronchial asthma, is related to its activity at the Beta adrenergic receptor site. This could explain why such small doses, such as five or ten mg. of prednisone per day, are often helpful in chronic asthma. There would be a decrease in the Beta adrenergic blockade, making the catecholamines (whether exogenous or endogenous) more effective. Steroids will inhibit histidine decarboxylase, that enzyme that replenishes the histamine released in atopic reactions. This could be one explanation why steroids reach their full effectiveness twenty-four to thirty-six hours after they are given.

Summary

1. We have tried to explain the immunologic events underlying the common atopic illnesses treated in the physician's office, that is, asthma and allergic rhinitis.

2. By studying the unbalanced autonomic nervous system of these organs, one can see how non-immunologic factors can trigger "allergic symptoms."

3. Finally, we have tried to indicate where the drugs used to treat these common illnesses fit into this immunologic scheme.

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316 East Broad Street

The Chloroform Party

The newest wrinkle in drug abuse among the young is the "chloroform party," says a report in the July 9, 1973 issue of JAMA.

Young adults in Wisconsin have been participating in chloroform parties. A bottle of chloroform is passed around and each participant inhales the vapors from a saturated cloth, says William W. Storms, M.D., of the University of Wisconsin.

The "high" is short-lived and does not leave any tell-tale signs. Some participants drink small amounts of chloroform in addition to inhaling it. The report describes the case of a 19-year-old boy who drank a quantity of chloroform on top of three bottles of beer and wound up in the hospital. He recovered, but suffered liver damage.

Drinking chloroform can cause coma, severe liver damage, and even death. Physicians and public health authorities should be aware that chloroform sniffing is a new fad, and people should be informed of its potentially lethal consequences. In the early days of ether anesthesia, a century ago, ether parties were then a short-lived fad among the smart set.

Cough Remedies Now Under Attack

Your favorite cough medicine may soon be gone. Physicians may be forced to revert to the old practice of writing their own cough mixture formulation for the local pharmacist to prepare, following orders from the Food and Drug Administration withdrawing from the market dozens of commercially prepared cough medications.

The FDA ruling is based on regulations that require proof of effectiveness of all medications through clinical trials. Many of the cough medicines, though used safely and effectively for many years, do not have this clinical proof, and may be withdrawn from the market.

"Unfortunately, neither practicing physicians nor the pharmaceutical industry can produce the objective evidence required under the law on behalf of most cough mixtures," says the AMA. "Cough mixtures are effective," says the editorial, "but, in addition to the one or two principal ingredients that make them effective, they contain a number of minor ingredients that cannot be shown to contribute to the over-all effectiveness of the mixture."



This psychoneurotic often responds

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive dis-

orders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant

medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

When you determine that the depressive symptoms are associated with or secondary to predominant anxiety in the psychoneurotic patient, consider Valium (diazepam) in addition to reassurance and counseling, for the psychotherapeutic support it provides. As anxiety is relieved, the depressive symptoms referable to it are also often relieved or reduced.

The beneficial effect of Valium is usually pronounced and rapid. Improvement generally becomes evident within a few days, although

some patients may require a longer period. Moreover, Valium (diazepam) is generally well tolerated. Side effects most commonly reported are drowsiness, ataxia and fatigue. Caution your patients against engaging in hazardous occupations or driving.

Frequently, the patient's symptoms are greatly intensified at bedtime. In such situations, Valium offers an additional advantage: adding an *h.s.* dose to the *b.i.d.* or *t.i.d.* schedule can relieve the anxiety and thus may encourage a more restful night's sleep.

symptom complex to Valium[®] (diazepam)

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal

or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred

vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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Valium[®] 2-mg, 5-mg, 10-mg tablets
(diazepam)

In studies of tissue antigens, two were found to be heart related. Using lymphocyte stimulation techniques, the authors endeavored to determine whether these antigens become functionally active in states of acute carditis and in myocardial infarction. Here reported are findings in a three-year preliminary study.

Lymphocyte Stimulation in Rheumatic Fever and Rheumatic Carditis*

Dennis M. Maziarz, M.D.
Langhorne, Pennsylvania

In studies done in the 1960's on the antigenic properties of particulate tissue antigens, various immunologic technics demonstrated the existence of antigens which were heart related. In 1967, Kushner and Kaplan¹ used goat antiserum to homogenates of human heart to analyze by agar diffusion and immunoelectrophoresis the saline extractable antigens of human ventricular myocardium. No evidence was obtained of an antigen in such saline-soluble extracts with organ specificity for heart. However, two antigens of heart with restricted organ distribution were demonstrated. One was found in heart and skeletal muscle and was identified as myoglobulin. The other was present in extracts of heart and kidney. This latter antigen could not be detected in the hearts of newborn infants, but was found regularly in hearts of adults.

It has been postulated that such antigens become functionally antigenic during states of active carditis and perhaps even transiently functional in association with myocardial infarction. It has been further postulated that,

since the present laboratory methods of analyzing and following the state of active carditis are inadequate, one may use lymphocyte stimulation procedures as a more precise diagnostic and follow-up tool for rheumatic carditis. Lymphocyte stimulation is simply the capacity of a person's lymphocytes to transform to blast cells and divide in the presence of antigens to which they are sensitive when both are placed in tissue culture. One may then accurately determine the degree of stimulation and hence antigenic activity by simply measuring the amount of H³T taken up by the dividing cells.

Thirty-two patients were selected from the Pediatric Department and CCU of the Martland Hospital Unit, and the OPD clinics of the Martland Hospital Unit and Newark Children's Hospital and were grouped as follows:

1. Control—No RF or RHD
2. RF active without RHD
3. Recurrences—RF active with RHD
4. RF active and RHD active
5. Recurrences—RF active with RHD active
6. Inactive cases
7. Doubtful cases—RF? without RHD, RF? with RHD
8. Myocardial infarction controls

*This work is from the Department of Pediatrics and CCU of Martland Hospital Unit, CMDNJ, Newark, where Dr. Maziarz was a resident in pediatrics.

¹Kushner, I. and Kaplan, M. H. *Journal of Immunology*, 99:526 (1967)

Preparation of Antigen—The heart and kidney antigens were obtained from two separate autopsies—one a six-month-old infant, the other a two-year-old child. This material was bro-

ken down into particulate size by sonification and autoclaved.

Collection—Approximately 10 cubic centimeters of blood were drawn from the patient into a heparinized syringe and aseptically placed into a DIFCO blood separation vial. This was then allowed to sit for 30 minutes. After adequate separation the top layer of WBC rich plasma was removed in a sterile syringe and placed into a sterile 20 cubic centimeter container.

Preparation of Cultures—This preparation was then diluted with TC-199, a tissue culture medium, to 1,000,000 WBC's per milliliter. Fetal calf serum to a dilution of 10 per cent was also added. This entire mixture was agitated gently and pipetted in one cubic centimeter aliquots into screw type test tubes suitable for tissue culture. All tests were done in triplicate and each series consisted of four cultures.

1. No antigen—representing minimal or no stimulation
2. 0.01 ml. PHA—representing maximal non-specific stimulation
3. Kidney antigen 0.03 ml.—to eliminate histocompatibility differences
4. Heart antigen 0.03 ml.

This series of cultures was then placed into an incubator and on the third day according to standard procedure 0.2 ml. of H^3T representing approximately one microcurie was added to the tubes containing PHA. On the sixth day of incubation a similar amount of H^3T was added to the remaining cultures. At the end of an additional 24 hours, the samples were removed from the incubator and placed into a freezer until ready to harvest.

Harvesting—We used a modification of the Schmidt-Thannhauser technic. One cubic centimeter of 0.6M PCA was added to the frozen samples which were then allowed to fully defrost. The samples were then agitated, centrifuged at 2,000 rpm for ten minutes and the clear supernatant was discarded into a radioactive waste container. This same procedure was then repeated using 0.2M PCA and both steps were repeated twice. Then 1cc of 5 per cent TCA was added to each sample

and all the samples were then placed into a boiling water bath for 45 minutes. Again centrifugation at 2,000 rpm for 10 minutes and the supernate was poured into a glass scintillation vial containing 10 cubic centimeters of Broy's solution. All tests were done on the Hewlett-Packard scintillation spectrophotometer.

Results

Statistical analysis of results revealed certain inconsistencies. A test was considered positive for rheumatic carditis when the calculated degree of lymphocyte stimulation was 10 per cent or more of the amount of maximal stimulation produced by the PHA control. Percentages would be meaningless because of the relatively small number of patients.

On the positive side, several patients with RF but without RHD had negative tests. However these same patients later developed heart murmurs and simultaneously their tests became positive.

On the negative side, these observations should be noted:

1. Certain patients had both a positive heart and a positive kidney result.
2. One normal control had a positive heart result.
3. The myocardial infarction controls were consistently negative.

One may put forth several possible explanations for the variability of the results. Where patients had a positive test for both heart and kidney, one could postulate the existence of a common antigen in both tissue types. Unfortunately the blood specimens collected from the myocardial infarction controls were collected within several days or even hours following the attack. One would not expect the tests to be positive, since lymphocyte stimulation is a manifestation of delayed hypersensitivity. Lastly, the major cause of the variable results was the fact that the antigen available was derived from relatively young myocardium. It had been shown that heart tissue from an individual older than two years is more potently antigenic.

This study will be repeated using older

heart antigen, more patients with active RHD and a larger total number of subjects.

This paper is the culmination of a three-year longitudinal study during which the

technical assistance of Dr. Alan Braunstein and Mrs. Theodore Kushnick was invaluable. The original ideas of the research's sponsor, Dr. Theodore Kushnick, gave needed direction.

385 Eastshire Commons

Laminar Air Flow in Operating Rooms

There is no conclusive evidence that laminar airflow has a favorable influence on the incidence of surgical wound infections, according to a study reported in the July, 1973 *Bulletin of the American College of Surgeons*.

"All presently accepted surgical, technical, and hygienic methods of achieving surgical asepsis must be maintained regardless of the type of air system employed," said surgeons Edward O. Goodrich, Jr., M.D., William S. Blakemore, M.D., William C. Beck, M.D., and Willis W. Whitfield of Sandria Laboratories. However, the authors added, there are systems of air handling which, when properly used, may reduce the number of airborne bacteria in critical areas of the operating room.

Laminar airflow has been adapted for operating rooms following extensive use in the electronic and pharmaceutical industries. The effectiveness of laminar systems in reducing the number of airborne bacteria depends on the type of installation and the behavior of the persons involved. No one can say that reduction of the number of airborne particles in the immediate vicinity of the wound will result in a lower incidence of wound infection.

Laminar airflow systems have two main components: the passage of air across a high efficiency particle absorbing (HEPA) filter, and

enclosure of the resultant air stream to impart directional character to the filtered air. In true laminar flow, the entire body of air in the confined space moves with uniform velocity along parallel flow lines. In actual use, the laminar flow characteristic is maintained only as long as the air stream is not disturbed.

The head, neck, and perineum are the most significant sources of bioactive particles, and physical activity increases their production and distribution, hence if all sources of bioactive particles could be located downstream from the sensitive area, or surgical wound, in a clean environment, it is safe to assume there would be essentially no bacteria falling into the wound. Those who consider air contamination as a source of infection believe that if, as well, all instruments and objects used in the wound area could be kept upstream of contamination sources, then no airborne bacteria could be carried to, or deposited in, the wound.

Whether the installation of a clean operating room is worthwhile in any individual situation is a local decision based on the ratio of cost to possible benefit.

Reprints of the article, *Laminar Clean Air Flow in Operating Rooms*, can be obtained from Edward O. Goodrich, Jr., M.D., 141 East Palace Avenue, Santa Fe, New Mexico 87501.

Thrombocytopenia in the first year of life is extremely rare, but such a case is here cited.

Idiopathic Thrombocytopenic Purpura in the First Year of Life

Robert R. Sirotý, M.D./Dover

A case of idiopathic thrombocytopenic purpura (ITP) in a ten-month old boy is presented. Because the syndrome is unusual in an infant of this age, its recognition and appropriate therapy is important to reduce the morbidity and the mortality associated with it.

A ten-month old male was seen because his parents had noted increased bruising not precipitated by evident trauma during the preceding two weeks. A month previously, he had been treated for bronchitis with a five-day course of erythromycin. At the age of one month he had received erythromycin for an otitis media. DPT immunization had been carried out in the ensuing months. At eight months, he was treated symptomatically for an upper respiratory infection.

Family history revealed one sibling with mild cerebral palsy, and one sister with hydronephrosis requiring nephrectomy.

The patient was the product of a normal gestation and delivery, although his mother had some "spotting" early in pregnancy. Increased bruising was noted when the child began to crawl (age seven months), but this was not considered excessive.

At the time of his initial examination, there were fading ecchymoses on the forehead, left cheek, chin, and the dorsum of the right hand. New ecchymotic lesions were noted on both legs. There was no significant adenopathy, and no palpable hepatosplenomegaly. Examination of the mouth revealed palatal petechiae.

Hematocrit was 38, white count was 9,500 with 24 segmented neutrophils, 72 lymphocytes, 3 monocytes and one eosinophil. Platelet count was 14,000. Clot retraction was absent after one and 24 hours. An inadvertent tourniquet test, done when blood was initially drawn, was positive.

Bone marrow aspiration from the left anterior iliac crest revealed 1 plus storage iron, increased numbers of megakaryocytes (which did not appear to be budding platelets), and normal myeloid and erythroid elements in normal ratio. Increased numbers of lymphocytes and eosinophils were found.

The marrow was felt to be compatible with the clinical picture of ITP and the patient was started on prednisone, 15 mg daily, because of the depth of the

platelet count and the duration of symptoms.

One week later, platelet count was 28,000 and large platelet forms were observed on peripheral smear. No new ecchymoses were seen after the second week, by which time the platelet count was 36,000. After five weeks, the count had reached 50,000 where it remained despite temporary increase in the prednisone dose to 30 mg daily. After eight weeks, the count jumped to 295,000. Prednisone therapy was then tapered and discontinued without significant drop in his count, and he remained asymptomatic and with normal platelet values thereafter.

While ITP occurs most frequently in childhood (85 per cent of cases in some series occurring prior to age 8),^{1,4,9} its incidence in the first year of life is unusual. The syndrome must be considered when unusual bleeding or bruising occurs in an infant of this age.

Newton and Zeulzer⁴ report an age range of nine days (questionable neonatal thrombocytopenia, a separate entity) to eleven years in their series, with seven of 47 cases occurring prior to age two. Doan, *et al.*⁶ report results of splenectomy of two children under age one. Of 152 cases cited by Lusher and Zuelzer,⁷ four occurred during the first year of life. Wintrobe⁸ lists three cases during this period of life. Other authors^{9,10} in large series offer no breakdown by early age groups. Males outnumber females under age 10.⁶

The syndrome frequently follows an upper respiratory infection by several weeks.^{1,2,3,4} Eosinophilia may be seen on bone marrow examination in addition to the usual findings of increased numbers of megakaryocytes, many of which appear to be immature.⁵

Therapy frequently is not required as many childhood patients undergo spontaneous remission over a period of several weeks. How-

ever, some children may require steroid therapy which usually results in prompt cessation of hemorrhagic episodes, with a return of the platelet count to normal levels from six to ten weeks later. A very small proportion of childhood cases require splenectomy. Doan, *et al.*⁶ reported in 1960 that splenectomy was the treatment of choice in view of their high success rate and low incidence of complications over the 28 years previous in treating 381 cases.

Post-viral thrombocytopenia, sometimes indistinguishable from ITP except by history (recent rubella or rubeola infection) has also become recognizable as part of ITP syndrome.^{2,3} The disease has also been shown to follow measles live-virus immunization.

The case described illustrates many of the characteristic features of the ITP syndrome, except that it occurred in a ten-month old. The patient was male, had had an upper respiratory infection, exhibited characteristic peripheral blood and bone marrow findings of thrombocytopenia, increased numbers of immature megakaryocytes and marrow eosinophilia, and a characteristic response to steroid therapy with fairly prompt remission of the

hemorrhagic tendency, and a more delayed rise in the platelet count.

The depth of the platelet count, and the potential morbidity and mortality⁴ make recognition and appropriate treatment most important, particularly in an age group where this condition is uncommon.

The author is indebted to Perry Zevin, M.D., Parsippany, New Jersey, for his kind referral of this patient, and to Julian B. Schorr, M.D. of the Montefiore Hospital and Medical Center, Bronx, New York, who was kind enough to see him during the course of his treatment.

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77 Union Street

Vitamin D Supplement Not Needed by Most Americans

Infants, pregnant women, and nursing mothers may need extra Vitamin D. The rest of us most likely already get more than enough.

This is a report in the June 11, 1973 issue of JAMA. Most commercial milks, baby foods, margarines, and breakfast cereals are fortified with Vitamin D. When this is added to Vitamin D obtained from exposure to sunlight, plus that naturally present in foods, the average American may receive several times the daily amount of Vitamin D he requires.

Extra pills on top of the naturally acquired supply of Vitamin D may prove too much to handle. The result may be nausea, vomiting, constipation, excessive urination, thirst, dehydration, and general weakness.

Most people get all the Vitamin D they need from intermittent exposure to sunlight, plus eating the ordinary American diet, except the recluse who is also a strict vegetarian. Dark-skinned people will get less of the vitamin from sunlight than light-skinned people.

All doctors should know how to conduct a screening program for lead poisoning and this College of Medicine group offers some practical suggestions here.

Screening for Detection of Childhood Lead Poisoning in Newark*

Ann Browder, M.D.,†
Morris Joselow, Ph.D., and
James Foster, B.S./Newark

Urban lead poisoning attributable to ingestion of lead-based paints is so widespread that it may be expected in all but the newest towns. Since damage can be done to the child in the absence of clearcut symptoms, evidence of the disease must be sought by community screening. In planning for such a screening project, some important questions must be considered:

1. Which children, by present knowledge, should be tested?
2. What organizations can most readily reach these children?
3. What technology is available for doing the screening test on the children?
4. What are the mechanisms for medical follow-up?
5. What options are there for environmental control and who will set priorities for their application on an on-going basis?

1. *The children at risk.* Demographic studies of lead-poisoned children¹ reveal they are mostly children of the poor.² Their families are often on welfare; the parents frequently are young and single, and with mothers often showing pica. What each child has in common is an environmental source of lead. Such environmental lead is, in the majority of cases, the house paint which must, in most locations, be peeling before it can be eaten. Lead paint best identifies the children at

Table 1

Reason for initial testing of children who were subsequently chelated, 1967-72, Newark.

	Total	Per Cent
Lead poisoning suspected by physician	133	43.1
Community screening	123	40.0
Child with poisoned sibling	33	10.7
Family concerned about pica	19	6.2
Total	308	100.0

risk. Screening should address itself primarily to these areas and not homes which, though old, are in good repair, or to public housing, built after leaded indoor paints were banned.³ Children may be paint eaters at any age, but pica is most likely to occur as an extension of the active oral exploration of the environment during early life. As many as 85 per cent of the cases of lead poisoning may occur under age 3.⁴ Children of ages 1 to 4 should be the primary target, with screening optionally open to age 6 or 7.

2. *Access to the children.* Parents are the key to reaching the children at risk. Informed parents can exert effective pressure to obtain relevant tests for their children. Over a 5 year period in Newark, family concern about pica was the reason for more than one out of every 20 admissions (Table 1). Parents in the

*From the Department of Preventive Medicine and Community Health, New Jersey Medical School, College of Medicine and Dentistry of New Jersey, Newark.

†Dr. Browder is presently associated with the University of Washington, Seattle, Washington.

poorest housing, however, may not be informed by media that reach more privileged families. Even with such information they may not be able to attend to other than emergency needs within their economic context.

Screening of all the children at risk may not be accomplished even with the combined outreach of several facilities. Pediatricians in private offices and health department clinics see infants and small children periodically for preventive care, but much of such practice is for children less than a year old, especially in health department clinics. Thus these examinations do not occur when the risk of lead poisoning is greatest. Hospital out-patient departments and emergency rooms are other sources of pediatric care during illness but are less well adapted to providing preventive services. Because of the failure to reach *all* children, other ways of screening have been tried, including temporary community screening stations and area-wide door-to-door canvassing. The case yield, from our own experience (Table 2) defined as number of children found with a blood lead level of 60 ug/100 ml or higher, can be increased at least two-fold over the yield of conventional medical facilities because of the potential selectivity.

Table 2

Distribution of blood lead levels in children tested by facility, Newark, 1970.

	Community Based Testing	Private Physician	Hospitals
Total screened	594	84	1353
Number 60 ug per cent and over	43	3	44
Case yield per 100 screened, %	7.2	3.5	3.4

While these special community-based programs can reach families who would otherwise not be tested, they are too costly to apply city-wide. Their more limited use is not always best decided by asking community groups to designate target areas since informed groups may pressure successfully for special testing to be done in their neighborhoods even though their risk may be relatively less.

One way of focusing on areas with a high incidence of lead intoxication is to make the assumption that children already identified as lead poisoned define high risk environments. In some cities, this may be a well localized area; in others, such as Newark, cases occur over a large part of the city. Where cases are scattered it would seem more reasonable to use the indicator case to screen clusters. This means visiting the residence where the child has spent significant time during the 6 months before diagnosis to test other household members between ages 1 and 6 and neighborhood children where housing conditions warrant it. This cluster testing might well be done by the health department on notification from the laboratory of elevated levels since this department generally is already serving as an outreach for contacts of tuberculosis, hepatitis, venereal disease, and other categorical illnesses. Cluster testing focuses outreach on areas demonstrated to be in need of testing. It also deflects inappropriate demands for community-based testing to a health facility where follow-up can be carried out directly. Increasingly, children may be tested outside non-medical organizations. The inherent problem with this approach is that the testing may have no connection with a medical facility where follow-up could be given.

In the larger urban centers, a substantial portion of those screened will require further medical supervision and care. As Table 3 indicates, the yield even with comparable tests

Table 3

Yield of positive findings in city testing programs among high risk groups

Date of Study	City	Number Screened	Per Cent Positive	Definition of Positive
1953-4	Baltimore	604	33	COPR*
1965-60	Cleveland	801	27	ALA,** COPR or urine Pb
1959-61	Chicago	500	18	COPR
1967-8	Chicago	68,744	8	Blood Lead 60 ug% or higher
1969-70	New York	38,719	12	Blood Lead 60 ug% or higher
1970	Newark	484	34	Blood Lead 60 ug% or higher

*Coproprophyrinuria

**Abnormal urinary level

is variable but substantial in all center city populations so far reported.

3. *The technology of testing.* The technic of obtaining specimens has recently been greatly simplified by substituting finger sticks for venepunctures.⁵ This has allowed many more people, for example, public health nurses and health aides to be trained to take specimens. The accuracy and validity of the laboratory data are, of course, a *sine qua non* for the success of any screening program. Many critical decisions (including patient as well as environmental follow-ups) are dependent on the laboratory results. Only a laboratory with demonstrated competency in the performance of this special test should be used. The difficulty and expense of creating and maintaining such a high quality laboratory have meant that all but the largest programs find it preferable both for reliability and economy to contract for the work.

Table 4

Means of payment of hospitalization costs in Newark 1967-1972 for lead-poisoned children

	Number	Per cent
Gov't support (includes Medicaid)	171	57
Blue Cross or Blue Shield	50	17
Other insurance	24	8
Guardian works but has no insurance	27	9
Guardian has no work and no insurance	28	9
Total	300	100

4. *Follow-up.* The blood lead levels at which various actions are taken is arbitrary. In Newark, at present, a blood lead level of under 40 ug per cent requires nothing beyond a repeat test within a year if the child seems still at risk. Between 40 and 59 ug per cent, the child is considered to have evidence of increased absorption and arrangements are made to retest at 1 to 3-month intervals until the extent of danger to the child is clarified. At 60 ug per cent or more (if confirmed) the child is hospitalized and treated. Children who require retesting and a decision about treatment must be under a physician's care. His services may be augmented with the help of para-professionals. In one Newark clinic, mothers of lead-poisoned children have been trained to be valuable assistants in the provi-

sion of follow-up examinations. Screening programs must anticipate the needs for various services. In the planning, the families' ways of paying for the out-patient and hospital care of the child should be considered. Table 4 gives the medical coverage of a series of children hospitalized for lead poisoning in Newark from 1967 to 1972.

A screening program has not discharged its responsibilities by merely securing the appropriate medical appointment; the appointments must be kept. In the big cities, the problem of missed appointments is compounded by the fact that children may be taken to more than one facility for health care. Each facility, while only incidentally aware of other services to individual patients, tends to assume patients lost to follow-up are receiving care elsewhere. Difficulties are further increased by the mobility of urban populations. In a Newark lead screening survey, 40 per cent of the families had been less than 2 years at their present address.

For lead poisoning programs, some common registry is essential. In Newark this function is performed by the Central Lead Registry. If such a unit is to be effective, it must:

A. Be immediately accessible by telephone, providing:

(1) current information on blood lead levels for each child; and

(2) information (address, telephone number, etc.) needed to reach each child.

B. Have a periodic listing by facility drawing the test of:

(1) all children with elevated blood levels who have not had repeat examinations within set times; and

(2) total numbers tested and the case file number found with blood levels of 60 ug per cent or over. This permits an estimation of the efficiency of the program and may also suggest areas for more intensive screening and follow-up.

C. Provide an annual epidemiologic report with demographic characteristics of children tested, especially their age and ethnic group.

5. *Environmental control to eliminate the source of lead poisoning is expensive.* Houses with lead paints usually have too weak an infrastructure for their coverings to hold for more than a period of months. Stiffer cover-

ing, such as beaver board, is quite satisfactory but results in higher costs. Flaming off old paint has obvious hazards, and removing paint mechanically requires hard and costly labor. Something, however, must be done to the walls of the house in which poisoning has occurred. Relocation of the poisoned child is a temporary expedient after treatment, but does nothing to protect the new young occupant. Innovative funding mechanisms, such as arrangements for revolving loans and tax incentives, need exploration. A prerequisite for a forceful program of environmental control is appropriate legislation and regulations to fix and enforce responsibility for rehabilitation (i.e. removal of the leaded surface or making it inaccessible).

The conclusion seems inescapable that with a problem of this magnitude—in terms of numbers involved, the seriousness of the outcome without intervention, and the cost of control—a cooperative effort among existing organiza-

tions and agencies is essential. Screening is best accomplished not by a wholly new or separate organization but by building upon the health service structures already in operation within a community. Centralization and management of the program, however, will almost certainly require a special office to provide communication, leadership, and access to the facilities needed for the combined efforts toward the common good of eliminating childhood lead poisoning.

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100 Bergen Street

Transfusion Needs in Heart Surgery Place Strain on Nation's Blood Supply

Open heart surgery is rapidly becoming a major surgical procedure in the United States, and there is a serious problem in some areas because of the need for large amounts of blood for transfusion during and after the operation, says a report in the September 17 issue of *JAMA*.

An average of one gallon of blood is used in each case of open heart surgery. In addition surgeons frequently call for fresh, whole blood—no more than one day old—and this presents a further drain on the available supply.

Researchers point out that more than 38,000 open heart operations were performed in 1971, and at the present rate of increase this figure will climb to nearly 100,000 by 1976. And as surgeons learn more about the heart

conditions that can be corrected by these techniques, the operation may boom to five or ten times 100,000 in the next three years, they say. If the operations should expand to half a million or more each year, "the nation's entire blood resource would be needed for cardio-pulmonary bypass use alone. Serious considerations should be given by surgeons and anesthesiologists to the adoption of known, already confirmed, methods for further reducing the need for whole blood during cardio-pulmonary bypass procedures."

Studies have shown that it is possible to use smaller amounts of blood. Blood components could be used, as well as blood with a longer shelf life than one day. Use of less fresh blood also would reduce the hazard of hepatitis infection, which now strikes 2.3 patients per 100 who undergo heart surgery.

Perhaps we do not take too seriously our educational functions vis-a-vis the individual patient. Here's a blueprint of a way to do that.

Special Article

Educational Functions of the Physician in Private Practice

Health Education Basic Art of Medical Practice

Robert C. Milligan, M.P.H., Hackensack

Getting the cooperation of the patient and his family, changing behaviour and attitudes, or at the very least having the patient understand thoroughly and carry out the desires of the physician are often the most important yet frustrating parts of both the treatment of the ill individual and in carrying out a program of family health maintenance. The modern physician, therefore, frequently finds himself in the role of a teacher, and often his success in treating an illness depends upon how well he carries out this role. Frequently this teaching aspect of his practice may be confined to merely imparting information with a brief explanation of what is to be done. Too often the physician discovers later that the patient has either completely misunderstood his instructions or even willfully disobeyed them. This, in turn, may provoke a sense of frustration in the physician who may feel his patients are either stubborn or stupid. It is our hope to go into some of the educational processes involved and perhaps be of some assistance to those physicians who feel they have problems interpreting health care instructions to their patients.

It sometimes seems overly simple to say it, but let's first remind ourselves that motivation comes from within. The smoker must want to quit smoking, the heavy drinker must want to quit drinking, the ill person must want to get well. The educational process must start with a desire to learn. The changing of behaviour must start with an even stronger motive to change. Although the goal of the patient may be merely to alleviate pain or otherwise return to good health, there may be other motives and goals to be reached. Those goals may be related to a striving toward a life style set by the individual for himself or by the group to which he belongs, either consciously

or unconsciously. The real immediate goal may be just to get well enough to make a trip to Chicago next week and close a business deal. The widow, who has worked long and hard for her son to get him a good education, will probably not accept surgery and long-term convalescence three months before he is to graduate. Following achievement of this first goal, surgery, or other treatment may be more acceptable. In discussing preventive health maintenance, goals can be even more obscure. "The children can get their tonsils removed or their teeth cared for after the car (or the new color TV) is paid for" is not an uncommon attitude. Get to understand your patient and his underlying motives and desires as well as you can with the time at your disposal. It is time well spent. The patient can be given the opportunity to learn and develop new motives.

Learning is an active process, and a continuing process. Someone may be able to explain to you exactly how to take a watch apart and repair it, but it is doubtful that you will put it back together unless you have actively participated a number of times in the entire process with someone who knows how to do it properly. Brain surgery should not be taught by a correspondence course, yet we often expect the diabetic patient to understand all about his insulin by giving him pamphlets to read, reviewing the process once or twice and presuming he is "taught." Learning is an active process, and the program must be learned and re-learned through a variety of sources, each

*Mr. Milligan holds his master's degree in public health from the University of North Carolina. He has been Associate Director of the American Public Health Association and has served as a consultant to the World Health Organization. He is presently Director of Health Education for the Bergen County Health Department.

reinforcing the learning of the previous lesson. Mass information campaigns, repeating messages about poliomyelitis immunization or measles vaccine, provide this reinforcement to those who already believe in the basic process of immunization and have a deep concern for the future welfare of their children. Radio, television, and newspaper campaigns do not convince those who do not believe in maintaining good health to begin with, or those who are not motivated to take advantage of such benefits. It is unreasonable to suppose that such "spot announcements" will make a mother bring her baby to the doctor for immunization when she is really wondering where she will get enough money for food tomorrow, or enough money to support a heroin habit, either, for that matter. These techniques frequently serve to reinforce learning which has taken place elsewhere. The more actively someone is engaged in a program, the more likely he is to learn and act accordingly.

Those who have led community discussion groups, volunteered for community programs, or otherwise actively participated in the solution of a health problem, are the ones who will respond most readily to a physician's advice and counsel. The physician who takes time to discuss various solutions to a problem with his patient, and helps the patient select the best course of action for him is usually more successful in imparting sound scientific information which will be retained by the patient and acted upon, than the physician who merely gives information to his patient in a one-way manner, by a short lecture or by handing him a pamphlet.

A third principle of learning is that each person selects what he sees, hears, or feels and interprets these sensations in terms of past and present experiences. If one is sitting in a large room with a party going on and someone mentions your name at quite a distance away, your mind will be very likely to select this particular sound out of the babble and make note of it. No two people can describe

an event which they have witnessed in precisely the same manner. Each interprets what he sees in the light of his own experience. To over-simplify a bit, a farmer and a physician might take a long drive along the same country road. The latter might consider the drive through the flat open farmland rather boring and can hardly wait to get to his destination. The farmer, however, might find the same trip fascinating, taking note of the various crops and animals along the way and the different techniques used in raising them. No one could say that the farmer was more observant than the physician. Their backgrounds and interests have trained their minds to select and observe different things from the multitude of stimulations that occur around us each day. Physicians must be aware that their patients are receiving different stimuli from the messages given them.

In summary, here are some suggestions that may be of value:

1. Devote time and thought to the diagnosis of the patient's attitude and the appropriate educational approach. It may be as important as making the right medical diagnosis.
2. Involve the patient in the learning-teaching process. If necessary, demonstrate to the patient and have the patient return the demonstration.
3. Reinforcement can be achieved by making use of all members of the health team. Clarification and explanation can be done by the nurse, nutritionist, dietician, social worker, or other allied health person. Be sure they are alerted to the role you wish them to play. Repetition, from different sources, expressed in different terms will help the patient understand more meaningfully.
4. Use audio-visual aids and pamphlets to reinforce learning. Do not use them as primary education tools. They are an aid to the program, they are not *the* program. These

aids can frequently be obtained from health departments and voluntary agencies.

5. Use the high status and close rapport which is an integral part of the patient-physician relationship to contribute not only to the recovery of the patient from a specific disease but also to raising the patient's over-all health

standards. Try to make his future health a matter of interest and concern.

6. A good private physician's office is a center for good preventive medicine. Good health education techniques are the keystone to an effective program to raise the "level of wellness" of your community.

355 Main Street

Comprehensive State Health Plan

The New Jersey State Health Planning Council released its goals in the first Comprehensive State Health Plan. These include:

—Reduction in infant mortality

—Reduction in disability from syphilis, gonorrhea, motor vehicle accidents, and occupational injuries and illnesses

—Reduction in the incidence and duration of

drug addiction

—Reduction of hazards to child growth and development, such as lead poisoning

—Improved coordination of health care delivery by maintaining or increasing the number of general practitioners, by discouraging the use of hospital emergency rooms by non-emergency patients and by making entry points to the care system readily identifiable.

INFORMATION FOR READERS AND CONTRIBUTORS

The Journal, the official organ of The Medical Society of New Jersey, is published monthly under the direction of the Committee on Publication. *The Journal* is released the first week of the month, and a copy is sent to each member of the Society.

Change of Address: Notice of change of address should be sent promptly to The Medical Society of New Jersey, P.O. Box 904, Trenton, New Jersey, 08605.

Communications: Members are invited to submit to *The Journal* any suggestions for the welfare of the Society, as well as comments or criticisms of material in *The Journal*. All such communications should be directed to the Editorial Office of *The Journal*. The Publication Committee reserves the right to publish, reject, edit, or abbreviate all communications submitted.

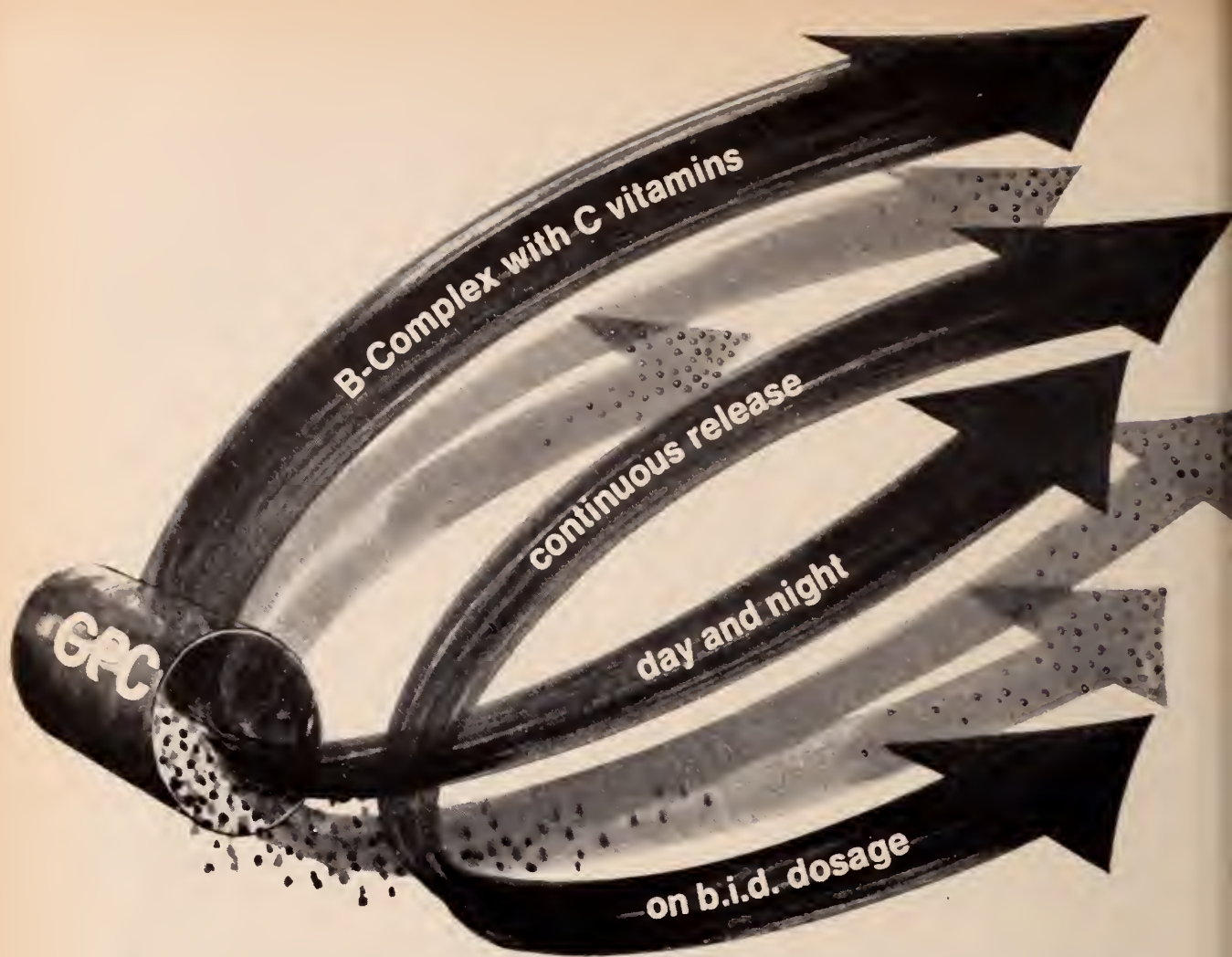
Contributions: Manuscripts submitted to *The Journal* must be typewritten, double-spaced on letter size (about 8½ by 11 inch) paper, and

forwarded to the Editorial Office at the address below. The Publication Committee expressly reserves the right to reject any contributions, whether solicited or not, and the right to abbreviate or edit such contributions in conformity with the needs and requirements of *The Journal*. Galley-proofs of edited or abbreviated manuscripts will be submitted to authors for approval before publication. Every care will be taken with the submitted material, but *The Journal* will not hold itself responsible for loss or damage to manuscripts. Authors are required to submit an original and one copy and are urged to keep a carbon for reference. It is understood that material is submitted here for exclusive publication in this *Journal*.

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NEW JERSEY DOCTORS' NOTEBOOK

Trustees' Minutes

November 18, 1973

A regular meeting of the Board of Trustees was held on November 18, 1973, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

Acupuncture . . . Noted that the meeting with the State Board of Medical Examiners on October 24 resulted in no decision on acupuncture and that a second meeting was scheduled for November 29.

HMO Federal Legislation—Senate Bill 14 . . . Noted that a communication had gone to New Jersey members of the House of Representatives indicating MSNJ's opposition to S-14 and HR-7974 (which call for federal subsidy of HMO practice and the creation of a commission on quality health care assurance).

Guests at Board Meetings . . . Approved the following recommendation:

That executive secretaries of component societies be invited to attend regular sessions of the Board of Trustees simultaneously with their Presidents, on a rotating basis.

Certificate of Need—Group Practice of Radiology . . . Approved the following recommendation:

That if the Health Care Administration proposes a rule requiring a certificate of need in the instance of the private practice of radiology, pathology, physical medicine and rehabilitation, medicine in general or any of its specialties, The Medical Society of New Jersey shall vigorously and forthrightly oppose such a rule to the fullest extent of its capabilities, including, if and when timely, litigation and/or remedial legislation.

Note: The above is in consequence of the Health Care Administration Board's action on October 23 (see Trustees' minutes, p. 951, December 1973 issue, *The Journal*) that would require a certificate of need for the practice of radiology, pathology, and physical medicine and rehabilitation. The issue has been referred to the Attorney General for decision on rule-

making power. If a rule is forthcoming, it would be considered by the Health Care Administration Board at its December meeting and published in the *New Jersey Register* (probably in January).

. . . Directed that the definition of the private practice of medicine be supplied to Board of Trustees' members and each of the component county medical societies.

Legal Counsel . . . Accepted, with regret, the resignation of E. Powers Mincher, Legal Counsel to MSNJ, effective July 1, 1974.

Comprehensive Health Plan for New Jersey . . . Approved the Executive Committee's action in appointing Louis F. Albright, M.D., John S. Madara, M.D., and Robert H. Areson, M.D., as MSNJ representatives to meet with the Director of the Comprehensive Health Planning Agency, as requested by the Commissioner of Health.

School of Allied Health Professionals . . . Approved the Executive Committee's action in appointing William A. Dwyer, Jr., M.D., John J. Crosby, Jr., M.D., and Marvin N. Solomon, M.D., as nominees for membership on the search committee for dean of the School of Allied Health Professionals, CMDNJ.

Medical School in South Jersey . . . Approved the Executive Committee's action in appointing Frank J. Hughes, M.D., Herbert D. Axilrod, M.D., Lawrence B. Owen, M.D., and Richard H. DuPress, M.D., as nominees for membership on the search committee for dean of the medical school in South Jersey.

Public Relations Projects . . . Approved the following continuing projects for the Council on Public Relations for 1973-1974:

1. Publication and distribution of (a) *Junior Health Hints* to schools and public libraries, (b) *Membership Newsletter*, and (c) *Periodic Newsletter*.

2. Publication of news releases as required in furtherance of the Society's interests and activities, including

(a) eye health screening program, (b) annual meeting, (c) child safety week, and (d) selected official programs.

3. Bestowal of Golden Merit Award.

4. Information Center and press releases at annual meeting.

5. Encouragement of orientation programs for new members under sponsorship of component societies.

6. Encouragement of statewide emergency medical care coverage, with relation to "Basic Concepts Underlying the Provision of Professional Medical Care," adopted by the House of Delegates and printed in the *Membership Directory*.

7. Encouragement of Future Physicians Clubs in each county.

8. Encouragement of increased voluntary blood donations.

9. Encouragement of radio broadcasts under auspices of county medical societies.

10. Encouragement of medical TV programs.

. . . Approved the following proposed projects for the Council on Public Relations:

1. Participation in public education regarding detection and treatment of diabetes.

2. Establishment of a physicians' placement service for professional opportunities.

Blue Cross-Blue Shield Coverage for Physician Employees . . . Received as informative and referred back to the Committee on Medical Defense and Insurance (for consultation with the American Association of Medical Assistants, State of New Jersey, Inc.) a recommendation of that Committee to approve establishment of Blue Cross-Blue Shield coverage to employees of physicians with a one-month waiting period for enrollment.

Academy of Medicine of New Jersey . . . Received as informative a report from the President of the Academy of Medicine of New Jersey, Arthur Bernstein, M.D., the key points of which are as follows:

(1) Thirty educational programs have been scheduled in outlying areas between November 1973 and June 1974,

(2) Additional intra-hospital programs will be scheduled in the future to enable completion of the required 150 hours of physician education,

(3) More in-house symposia will be scheduled,

(4) Registration rates for members and non-members have been increased,

(5) Investigation is being conducted toward new statewide educational programs,

(6) Consideration is being given to the publication of a bulletin, and

(7) Investigation is being conducted of a physician-resident program to supply hospitals in outlying areas with teaching and rounds-making personnel.

Chiropractic . . . Instructed the New Jersey Delegation to the AMA to introduce an emergency resolution at the AMA Clinical Convention in December, calling upon the AMA actively to seek the rescission of the decision announced by the United States Office of Education declaring the Logan College of Chiropractic an "institution of higher learning."

Communicable Diseases in New Jersey

The following communicable diseases were reported to the Communicable Disease Control Program of the New Jersey State Department of Health during November 1973.

	1973 November	1972 November
Aseptic meningitis	23	71
Primary encephalitis	1	6
Hepatitis: Total	181	286
Infectious	79	220
Serum	48	66
Unknown	54	0
Meningococcal Meningitis:		
Military	0	2
Mumps	82	221
German measles	6	17
Measles	141	1
Salmonella	152	98
Shigella	64	40

Staphylococcal Infections

During the early months of 1972 an increasing number of hospitals began reporting outbreaks of staphylococcal infections in newborns. Although the increase in nursery infections has been associated with the discontinued use of 3 per cent hexachlorophene solutions for routine bathing of newborns, the Center for Disease Control and the New Jersey State Communicable Disease Program believe that overcrowding, understaffing, and laxity in good infection control techniques in nurseries are factors which must be remedied in order to reduce nursery infections.

An outbreak of staphylococcal infection associated with a nursery is defined as two or more clinical cases of disease with cultures positive for coagulase-positive staphylococci; the cases occurring within two weeks of one another. In outbreaks investigated by the Communicable Disease Program, infections have occurred while infants are in the nursery and after they have been discharged. The types of infections most frequently seen are furunculosis, impetigo, purulent drainage from the umbilicus, and purulent conjunctivitis. Staphylococcal bacteremias have occurred, but not frequently.

The Communicable Disease Program should be notified of outbreaks of infectious diseases occurring while newborns are in the hospital or after the infants have been discharged. Physicians diagnosing these infections should notify the hospital Infection Control Nurse or some member of the hospital's Infection Control Committee. The Communicable Disease Program notified of outbreaks will work with the hospital personnel to establish effective infection control procedures and attempt to eliminate sources of infection. Hospital laboratory services and State laboratory services will be coordinated, so that appropriate specimens can be sent to the Center for Disease Control for phage typing. To report outbreaks of nursery associated infections call 609-292-7300.

Therapeutic Drug Information Center

The New Jersey Regional Pharmaceutic and Therapeutic Drug Information Center, located at the Valley Hospital, Ridgewood, New Jersey, serves as a source of information on specific problems, articles, and reports concerning pharmaceutic and therapeutic information. A specialized library maintained by the Center contains complete information about U.S., foreign, investigational, and proprietary drugs, including their identification, availability, interactions, compatibility, side effects, dosage, adverse reactions, and so on.

The Center is staffed by trained pharmacists. Jack M. Rosenberg, Pharm. D., Associate Professor of Pharmacy and Director of Drug Information, Brooklyn College of Pharmacy, LIU, serves as Consultant Director. Salvatore Peritore, M.S., serves as Project Director, and Kenneth Anderson, Assistant Project Director. The service is provided free, open seven days a week, and is available by telephone—(201) 445-4900, extension 304. Below are three questions and answers handled by the Center recently.

1. Is it considered rational drug therapy to use tetracycline and penicillin concomitantly?

The clinical significance of the empirical observation that certain bacteriostatic drugs, that is, tetracycline, may antagonize the bactericidal action of penicillin is debatable.

A recent article by Rahal¹ describes various mechanisms of antibiotic activity. The article indicates that once cell wall synthesis has been successfully interrupted by penicillin, a lytic substance naturally present within the organism must be active to disrupt the underlying cell membrane. This results in death of the microorganism. Since the lytic substance is an enzyme, an antibiotic, such as tetracycline which inhibits protein synthesis, prevents its formation and thus antagonizes the lethal effect of penicillin.

Kagan² indicates that it appears unlikely that antimicrobial antagonism accounts for a significant proportion of therapeutic failures encountered in current practice. Nevertheless, combinations of bacteriostatic and bactericidal drugs remain theoretically objectionable and certainly increase the likelihood of adverse drug reactions.

References

¹ Rahal, J. J.: Mechanisms of antibiotic activity, *Bergen Pines Medical Staff Report*, (October 1973)

² Kagan, B. M.: *Antimicrobial Therapy*. Philadelphia, Saunders, 1970. p. 9

2. Is there any reason why pentazocine (Talwin®) should not be used as an analgesic for narcotic addicts or for patients receiving narcotics?

The AHFS¹ indicates that pentazocine, a weak narcotic antagonist, should be administered with caution to patients dependent on narcotics or to patients receiving them. Pentazocine may produce acute withdrawal symptoms in some patients when substituted for narcotics.

Goodman and Gilman² indicate that patients who have been receiving opioids on a regular basis may experience withdrawal symptoms when given pentazocine. After an opioid-free interval of one or two days, it is possible to administer pentazocine without producing such withdrawal effects.

A recent review published in JAMA³ indicates that physicians must be aware of the fact that the pentazocine may precipitate withdrawal symptoms in patients who have been receiving narcotics repeatedly.

Because there is an increasing number of patients receiving methadone regularly for the treatment of narcotic dependence, this precaution is of particular importance when such patients need a drug for relief of pain. In these cases, analgesics other than pentazocine should be used.

References

¹ American Hospital Formulary Service, American Society of Hospital Pharmacists, Washington, D.C. (1972) p. 28:08

² Goodman, L. and Gilman, A.: *The Pharmacological Basis of Therapeutics*, 4th edition London, MacMillan Company, 1970, p. 270

³ Anonymous: Use and misuse of pentazocine, Drugs Commentary. *JAMA*, 225:1530 (September 17, 1973)

3. Are there any reports of a drug interaction between tolbutamide and sulfoxazole?

Evaluation of Drug Interaction—1973¹ indicates that the possibility of an interaction occurring between any sulfonylurea* and sulfonamide** combination should be considered prior to administration of such a combination.

Hansten² noted that sulfoxazole (Gantrisin®) has been reported to potentiate the effect of tolbutamide, resulting in severe hypoglycemia.

Christensen and co-workers³ conducted experiments that led to the conclusion that sulfaphenazole (Sulfabid®, Orisul®) significantly enhances the hypoglycemic response in tolbutamide-treated diabetics by displacing tolbutamide from its plasma protein binding sites.

Tucker and Hirsch⁴ and Dall, *et al.*⁵ both indicated that when sulfonamides are administered in addition to a sulfonylurea, the latter will be displaced from its plasma protein binding sites. This displacement may result in severe hypoglycemia.

References

¹ Anonymous: *Evaluation of Drug Interactions*—1973, 1st edition. Washington, D.C., American Pharmaceutical Association, 1973, pp. 147-148

² Hansten, P.: *Drug Interactions*, 2nd edition. Philadelphia, Lea and Febiger, 1973, pp. 78-79

³ Christensen, L. K., *et al.*: Sulfaphenazole-induced hypoglycemia attacks in tolbutamide-treated diabetics. *Lancet*, 2:1298 (December 21, 1963)

⁴ Tucker, H. S. G., and Hirsch, J. I.: Sulfonamide-sulfonylurea interaction (letter). *New Eng J Med*, 286:110 (January 13, 1972)

⁵ Dall, J. L. C., *et al.*: Hypoglycemia due to chlorpropamide. *Scot Med J*, 12:403 (1967)

*The sulfonylureas in common use are as follows: acetohexamide (Dymelor®), chlorpropamide (Diabinese®), tolazamide (Tolinase®), tolbutamide (Orinase®).

**The sulfonamides in common use are as follows: sulfadiazine (various manufacturers), sulfamethizole (Thiosulfil®), sulfaphenazole (Orisul®, Sulfabid®), sulfoxazole (Gantrisin®, Sodizole®, Sosol®, Unisulf®)

JTI Assistance Program

The New Jersey Juvenile Terminal Illness Assistance Program (JTIAP) provides financial assistance to pay for necessary medical care for terminally ill children, whose families are unable to pay for such treatment and where such payment is not covered under other State programs, such as the Crippled Children Program.

Help is provided for children (under the age of 21 years) who have an incurable illness, which is expected to cause death within a short time. The terminal status of the patient must be certified as such by two New Jersey physicians.

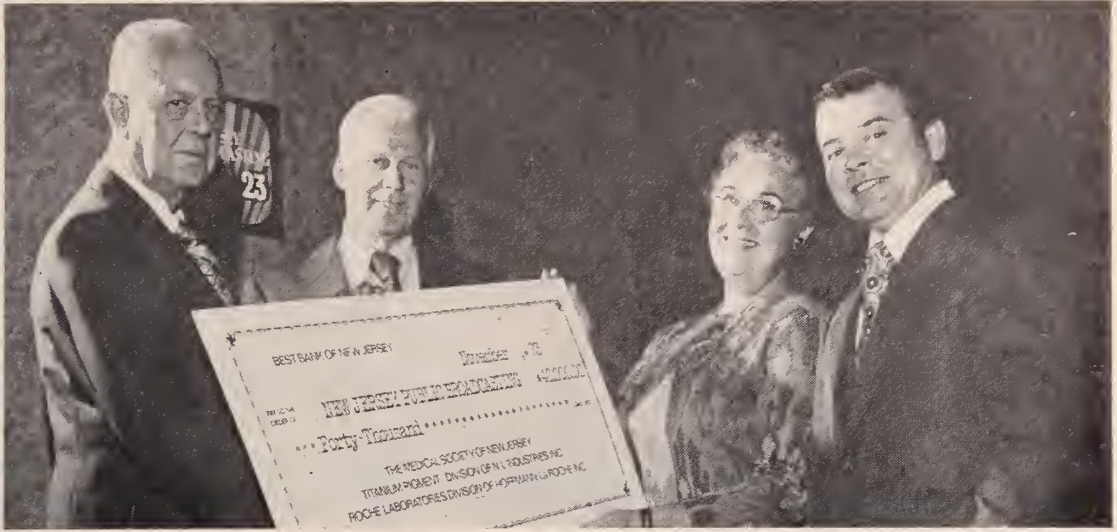
The program assists in paying for medical or supportive services required to prolong the lives or relieve the discomfort of these children. Services include outpatient radiotherapy, special duty nursing, transportation, telephone, babysitting, and others.

The financial participation of JTIAP depends on its authorization of services in writing, *in advance of their being provided*. The only exception to this rule is made under the circumstance of emergency admission for hospital care, in which case provisional authorization may be granted by telephone.

The Program encourages telephone inquiries concerning specific patients, when there is uncertainty as to the eligibility of the condition or of the family for assistance. Services will be authorized when (1) the request is for the treatment of a terminal illness and/or (2) the child's family is unable to meet the entire cost of the treatment needed, and there is no other resource.

If you know of eligible children, whose families are unable to afford needed services, please refer them to JTIAP. Additional information may be obtained by writing to: Juvenile Terminal Illness Assistance Program, New Jersey State Department of Health, P.O. Box 1540, Trenton, New Jersey 08625.

Gift for Public Health Education



Matthew E. Boylan, M.D., President, MSNJ, Arthur R. Millas, Assistant General Manager, U.S. Titanium Pigment Division, NL Industries; Frances Abel, M.D., Assistant Director, Professional Services, Roche Laboratories; and G. Mathis Sleeper, Director of Development, New Jersey Public Broadcasting Authority.

The Medical Society of New Jersey, in cooperation with the Titanium Pigment Division of NL Industries (Sayreville) and Roche Laboratories, Division of Hoffmann-LaRoche (Nutley), inaugurated the first of a five-series TV program on November 19—this one on heart disease. The December program was on genetic defects. Later viewings are: pulmonary disease (January 14), trauma (February 11), and cancer (March 11).

Matthew E. Boylan, M.D., President of The

Medical Society of New Jersey, participated in the presentation of a gift to the New Jersey Public Broadcasting Authority. This excellent project will reach an audience of over 850,000 people per showing.

The joint effort of organized medicine and industry in a public health education project is an indication of our professional interest in the community welfare and of our belief that non-professional education does not have to have government sponsorship.

208th ANNUAL MEETING

May 11 - 14, 1974

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Scientific Section programs will be certified for continuing medical education credits.

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*AVAILABLE ON REQUEST: Ronald J. Goldberg, M.D. & Franklin F. Shuman, M.D.
Double-blind study on the treatment of mentally confused patients. Reprinted
from the Journal of the American Geriatrics Society, Vol. XII, No. 6, June 1964

CMDNJ Notes

Stanley S. Bergen, Jr., M.D.
President CMDNJ

It's appropriate to begin the first column of the new year by expressing my personal thanks, as well as those of the trustees, faculty, students, and administration of the College of Medicine and Dentistry of New Jersey, for the strong support and interest of the membership of The Medical Society of New Jersey during the past year. We look forward to many more productive years working with your Society.

The new year will be marked by the beginning of another school of our College, the recently mandated School of Allied Health Professions. Establishment of such a school was one of the recommendations in the Health Professions' Master Plan, Phase III, of the New Jersey Department of Higher Education. This school will join the four established schools—New Jersey Medical School, Graduate School of Biomedical Sciences (both Newark), Rutgers Medical School (Piscataway), and New Jersey Dental School (Jersey City). The location of the new school's base has not been determined.

As with the Southern Jersey medical education program, we are developing programs and curricula and at the same time addressing ourselves to the practical matters of house-keeping.

Cooperation with other institutions of higher education in the State in the development of certificate and joint degree programs will be one of the important objectives of the new school. We expect to be innovative in the programs we develop with the cooperating schools.

The College currently offers a number of programs which will be united under the administration of the new school. They include radiologic technology, respiratory therapy, medical technology (Bachelor of Science degree program conducted jointly in association with Seton Hall University, Kean College,

and Rutgers University), career ladder training which consists of programs for surgical assistants, ophthalmic assistants, renal dialysis technicians, mental health workers, and high school orientation to health careers. Career ladder programs are conducted in association with Essex County College, Beth Israel Hospital, and the Veterans Administration Hospital, East Orange. New programs to be offered by the School of Allied Health Professions include dietetic internships, cytotechnology, dental hygiene (conducted jointly with Essex County College), physician assistants (Bachelor of Science degree program conducted jointly with Livingston College), and pediatric nurse practitioner (conducted jointly with Rutgers University School of Nursing).

The new school will be organized with its own dean who will report to the president of the College. It will have its own administrative structure, budget, and faculty. Although the new school will be based at one of our existing schools, it will be statewide in its scope of operation and its programs will be located on various campuses.

We hope to establish standards of excellence in training for all levels of the health care delivery team and assist in extending the effectiveness of the practicing physician.

CLINICAL NOTES

Readers of THE JOURNAL are invited to submit personal contributions for this new page. Material of general interest, which can be concisely summarized (one or two paragraphs—up to 150 words), and does not require a thorough report, is preferred. If you have a successful new procedure, a brief practical suggestion, or a bizarre or unusual clinical experience you would like to share with your colleagues, please send it to us (PO Box 904, Trenton 08605) for "Clinical Notes."

PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

ANESTHESIOLOGY—George D. Tedesco, M.D., 801 Inverness Avenue, Apt. B-13, Nashville, Tennessee 37204. Buenos Aires 1970. Group. Available July 1974.

FAMILY PRACTICE—Samuel A. Greenberg, M.D., P.O. Box 434, Woodstock, New York 12498. New York Medical 1937. Emergency Room of Hospital. Available immediately.

Eugene J. Mlynarczyk, M.D., c/o General Delivery, Brigantine 08203. Temple 1969. Board eligible. Group. Available.

GENERAL PRACTICE—Joseph Weiss, M.D., 42-B Appletree Lane, Old Bridge 08857. St. Louis 1973. Group. Partnership or emergency room (no OB). Available July 1974.

INTERNAL MEDICINE—David A. Ingis, M.D., 2411 Woodmere Drive, Cleveland, Ohio 44118. NYU 1968. Board certified (IM), Board eligible (GE). Group or partnership. Available.

Alfred Munzer, M.D., 2120 Brooks Drive, Suitland, Maryland 20028. SUNY. Downstate. 1968. Subspecialty, pulmonary disease. Board certified. Group, partnership, or hospital. Available July 1974.

Edward A. Wroblewski, M.D., 531 Charleston Road, Mt. Laurel 08057. Jefferson 1968. Board eligible. Group, partnership, or solo. Available July 1974.

Thomas J. Cuomo, Jr., M.D., 5405 Markview Lane, Richmond, Virginia 23234. Jefferson 1969. Board certified. Group or partnership. Available August 1974.

H. Farahany, M.D., 64 East Park Street, East Orange 07017. Tehran 1965. Board certified. Solo. Available July 1974.

Esteban R. Lomnitz, M.D., 2185 Lemoine Avenue, Apt. 6K, Fort Lee 07024. Chile 1963. Board certified. Subspecialty, cardiology. Group, partnership, or hospital. Available July 1974.

Arto Mouradian, M.D., Baylor Medical Center, 3500 Gaston Avenue, Dallas, Texas 75246. Cairo 1966. Board eligible. Hospital or group. Available July 1974.

Gloria L. Perez, M.D., Baylor Medical Center, 3500 Gaston Avenue, Dallas, Texas 75246. Santo Tomas 1961. Board eligible. Subspecialty, cardiology. Group or hospital. Available July 1974.

Suresh Jain, M.D., 320 East 23rd Street, New York 10010. Lucknow (India) 1960. Board certified. Subspecialty, gastroenterology. Group or partnership. Available July 1974.

Paul A. Hamlin, M.D., 673 Foch Boulevard, Wiliston Park, New York 11596. New York Medical 1967. Board certified. Subspecialty, pulmonary medicine. Group, partnership; also part-time teaching. Available.

OBSTETRICS-GYNECOLOGY—Anant Ram Bhati, M.D., 506 Dixmyth Avenue, Cincinnati, Ohio 45220. Jaipur (India) 1964. Board eligible. Available 1974.

Richard J. Malafy, M.D., New Britain General Hospital, New Britain, Conn. 06050. New Jersey Medical School 1971. Group, partnership, or solo. Available July 1974.

Mei Pu Lin, M.D., 6910-D Lachlan Circle, Baltimore 21239. Kaohsiung (Taiwan) 1964. Board eligible. Group or partnership. Available July 1974.

PATHOLOGY—Yadoolah Gorji, M.D., 3455 Street Road, Witherspoon #8, Cornwells Heights, Pennsylvania 19020. Tehran 1964. Board eligible. Hospital practice. Available August 1974.

PEDIATRICS—V. Balachandar, M.D., 267 North New Bridge Road, B-18, Levittown, New York 11758. Kasthuriba (India) 1966. Board certified. Subspecialty, endocrinology. Group, partnership, institution, or clinic. Available July 1974.

PSYCHIATRY—Gary L. Portadin, M.D., 1059 Lexington Avenue, New York 10021. NYU 1970. Board eligible. Group, partnership, solo, hospital. Available July 1974.

RADIOLOGY—William J. Cosgrove, M.D., 463 Harris Drive, Watertown, New York 13601. Georgetown 1933. Board certified. Full-time or part-time with individual, group, or hospital. Available.

Robert D. Hochberg, M.D., 1600 Hagys Ford Road, Narberth, Pennsylvania 19072. Pennsylvania 1970. Board eligible. Group or partnership. Available July 1974.

SURGERY—Peter A. Haas, M.D., 2098 Butler Pike, Plymouth Meeting, Pennsylvania 19462. Budapest 1950. Board eligible. Group, partnership, solo. Available.

Ratnakar R. Andalkar, M.D., 11 Amherst Street, Biddeford, Maine 07005. Manglore (India) 1968. Solo, partnership, or group. Available July 1974.

THORACIC SURGERY—Jack Lee, M.D., 860 Harrison Avenue, Apt. 805, Boston, Massachusetts 02118. New York Medical 1965. Board eligible. Group or partnership. Available January 1975.

UROLOGY—Mohammad N. Jam, M.D., 2905 North Charles Street, Apt. 105, Baltimore, Maryland 21218. Tehran 1964. Board eligible. Group or partnership. Available.

Mohamed F. Abidin, M.D., 245 Ogden Avenue, Jersey City 07307. Damascus (Syria) 1964. Board eligible. Group, partnership, solo. Available.

Harris D. Slavock, M.D., 15 Merion Lane, Willingboro 08046. Northwestern 1969. Board eligible. Group, partnership, or association. Available June 1974.

CLINICAL NOTES

Hypersensitivity Myocarditis: A Fatal Reaction

Alfred S. Conston, M.D./Somerville*

Tissue reactions to a variety of medications are well documented in the medical literature. Reaction involving the liver has been reported in patients receiving methyldopa. A case is here presented which appears to implicate this drug in a fatal hypersensitivity myocarditis.

A 47-year-old male, in essentially good health, was found to have mild hypertension without symptoms. He was treated with sodium clorthiazide (Diuril®) without effect. His physician then prescribed methyldopa (Aldomet®). After several days, the patient thought that the medication was "upsetting" him (no further clarification available) and stopped the treatment. Two weeks later, and three weeks from the time methyldopa was first prescribed, he again consulted the physician. He was instructed to try again with methyldopa. Forty-eight hours later he returned from work, complained of tiredness and took a nap. Several hours later he was found to be unresponsive and was immediately brought to the hospital by a rescue squad, but had died enroute.

At autopsy, findings indicated that death occurred from severe pulmonary edema and congestion. The heart was large, dilated, and had a pale, flabby, mottled myocardium. There was no significant arteriosclerosis. The viscera were congested. Microscopic examination revealed a diffuse acute inflammatory reaction, including many eosinophils, in the heart. There was no necrosis or granuloma formation. The liver showed an inflammatory reaction, at the portal areas, consisting more of lymphocytes and plasma cells, plus scattered eosinophils.

On reviewing the sequence of drug treatment

and the pathologic findings, it seemed likely that the initial use of methyldopa had produced a mild "drug hepatitis" which might have produced the upset feeling that caused the patient to stop treatment. This was probably a sensitizing event. Some two weeks later, when methyldopa was taken again, a more severe hypersensitivity reaction occurred, producing the fatal myocarditis. Since such a fatal reaction has not been reported in the literature or to the pharmaceutical manufacturer, the Section on Tissue Reactions to Drugs of the Armed Forces Institute of Pathology was consulted. Dr. Nelson Irey, of that institution, confirmed the impression of hypersensitivity myocarditis and hepatitis probably due to methyldopa and also confirmed the fact that other similar cases were not known.

Physicians should be aware of the variety of drug reaction, which may occur, and should realize that some of these reactions may have catastrophic effects. This case appears to be the first reported cardiac fatality attributable to methyldopa. Unexpected clinically observed abnormalities of cardiac action (arrhythmias, EKG changes, and so on) during methyldopa therapy may be drug-related.

*From the Somerset Hospital, Somerville. Dr. Conston is pathologist there and clinical associate professor of pathology at Rutgers Medical School, CMDNJ.

Emergency Department "Red Herrings"

William A. Kressler, M.D./Trenton*

With the increased use of the hospital emergency department as a substitute for the private physician, there has been a significant increase in the number of gynecological problems encountered. These cases consist mostly of complications of pregnancy and pelvic inflammatory disease (primarily gonorrhea).

As the physician sees more and more cases of pelvic infection, he tends to think of PID first and may miss the correct diagnosis completely. The following brief case histories are a reminder that we must never let down our guard.

A 24-year old female was seen for abdominal pain and a vaginal discharge of four weeks' duration. Her last menstrual period was said to have been three weeks before the visit. Temperature and blood pressure were normal. Clinical findings suggested gonorrhea and a cervical culture was taken prior to penicillin therapy.

The culture was subsequently reported as positive for gonorrhea. However, before that she had returned with increased pain, hypotension, and anemia.

A 35-year old female was seen for abdominal pain and discharge. Her last menstrual period had ended a few days before. The patient had six children and had a tubal ligation after the last delivery six years ago. Her temperature was 100, blood pressure normal. A cervical culture was taken and she was treated with penicillin for suspected gonorrhea. She returned three days later with increased abdominal pain, hypotension, and anemia.

A 17-year old female was seen for abdominal pain and vaginal bleeding. She had had an IUD in place for the previous 11 months. Her last menstrual period had been 39 days before this visit, although there had been some irregular bleeding off and on during the past few weeks. No specific diagnosis was made at the time. Two days later she returned with severe abdominal pain, hypotension, and anemia.

All three of these patients were found to have ectopic pregnancies. Since 1971, there have

been 25 confirmed cases of ectopic pregnancy at Mercer Hospital, Trenton. The three cases presented above were picked, since they help emphasize the variable clinical picture of ectopic pregnancy. If nothing else, the review of the 25 cases disclosed how infrequently the "typical" picture for ectopic pregnancy was found. "Red herrings" were abundant in this series with two patients having long-standing tubal ligations, five patients having IUD's, and one patient having a concurrent intrauterine pregnancy. Twelve patients were in some degree of shock when admitted to the hospital. Of these, five had been seen earlier by a physician and mistakenly diagnosed as having pelvic inflammatory disease.

*Dr. Kressler is Director of the Emergency Department at Mercer Hospital, Trenton.

Cancer Cytology

Martin R. Rush, M.D./Red Bank*

Cancer cytology has survived a long and stormy period of gestation. The demand for this modality is well documented. Deaths due to cervical cancer have been reduced by half even though only half of our women have been screened at least once. The cytologic diagnosis is only as good as the input. It is, therefore, imperative that every physician take an adequate specimen which must be fixed immediately so that microscopic examination will show fine detail in a good state of preservation.

To assist the cytologist, use an Ayres type of spatula. If a mucous plug is present in the cervix, discard it. Then dip the spatula first into the vaginal pool; proceed directly to do a thorough 360 degree scrape of the external os. The same maneuver is used to probe as much of the endocervical canal as possible and two-thirds of the slide is smeared, leaving one end clear for identification. Immediately fix with any of the spray fixatives commercially available or place in a small bottle of 95 per cent alcohol. Your cytologist will be grateful. More important, your patient's "security blanket" will be genuine.

*Director, Rush Laboratory, Red Bank

Control of Ophthalmia Neonatorum

Bernard N. Millner, M.D./Trenton*

Instillation of one per cent silver nitrate solution in the eyes of newborns immediately after birth is the most effective measure to prevent ophthalmia neonatorum. It is superior to antibiotic solutions or ointments, which may encourage the emergence and colonization of antibiotic-resistant organisms in nurseries. Antibiotic use should, therefore, be reserved for the treatment of ophthalmia. Proper use of silver nitrate solution should

ensure its reaching all parts of the conjunctival sac—widen the lids with the fingers so that the drop spreads throughout the sac. If the medication fails to reach the cornea, instillation should be repeated. It is recommended that the eye *not* be irrigated following the procedure so that mild chemical conjunctivitis develops. It is further recommended that cervical cultures be taken from expectant mothers for detection of asymptomatic gonococcal infections.

*Director, Parental and Child Health Services, New Jersey Department of Health.

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Warning: Not intended for treatment of pernicious anemia or other primary or secondary anemias. Neurologic involvement may develop or progress, despite temporary remission of anemia, in patients with pernicious anemia who receive more than 0.1 mg of folic acid per day and who are inadequately treated with vitamin B₁₂.

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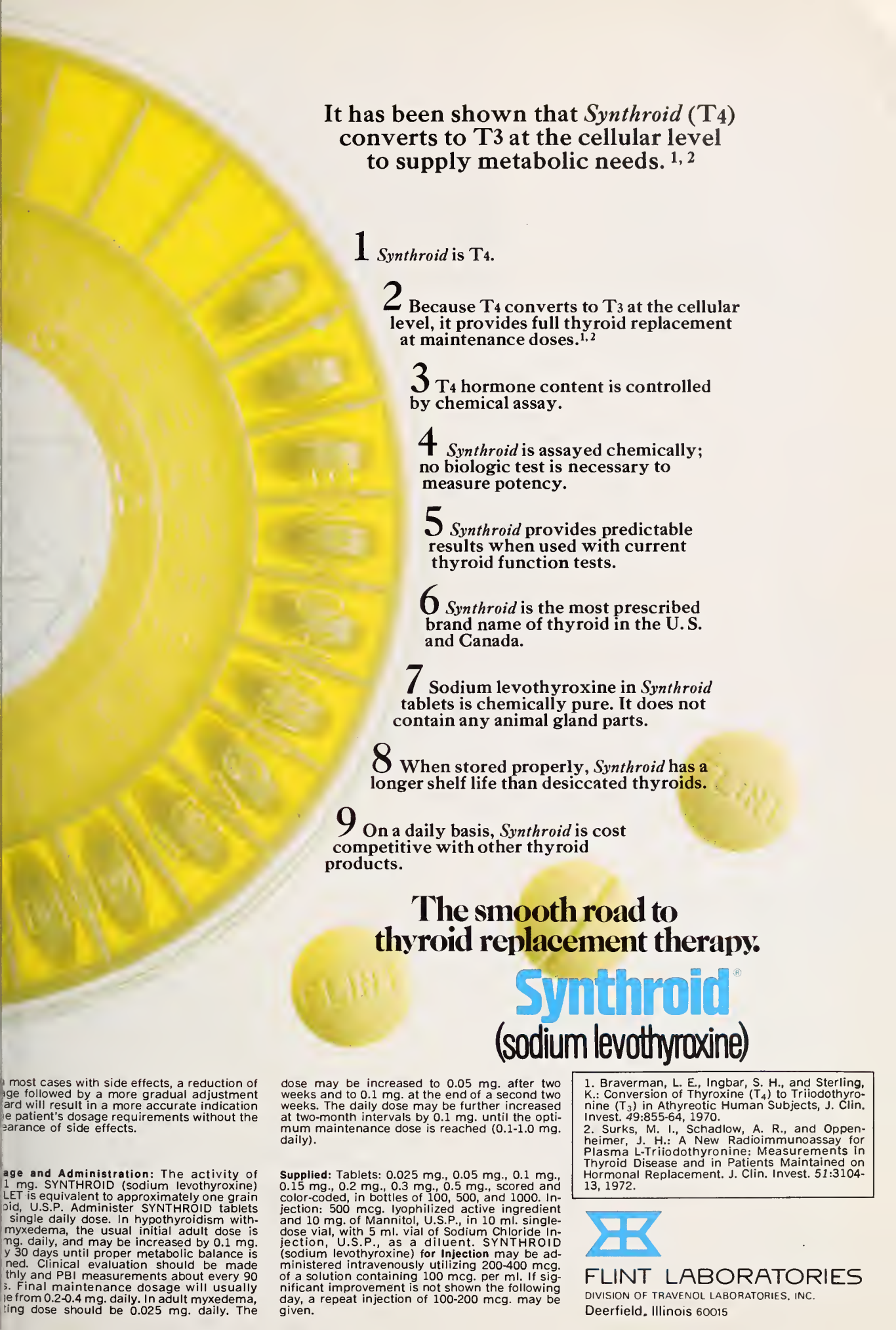
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Precautions: As with other thyroid preparations, an overdosage of SYNTHROID (sodium levothyroxine) may cause diarrhea or cramps, nervousness, tremors, tachycardia, vomiting and continued weight loss. These effects may begin after four or five days or may not become apparent for one to three weeks. Patients receiving the drug should be observed closely for signs of thyrotoxicosis. If indications of overdosage appear, discontinue medication for 2-6 days, then resume at a lower dosage level. In patients with diabetes mellitus, careful observations should be made for changes in insulin or other antidiabetic drug dosage requirements. If hypothyroidism is accompanied by adrenal insufficiency, such as Addison's Disease (chronic adrenocortical insufficiency), Simmonds's Disease (panhypopituitarism) or Cushing's syndrome (hyperadrenalism), these dysfunctions must be corrected prior to and during SYNTHROID (sodium levothyroxine) administration. The drug

should be administered with caution to patients with cardiovascular disease; development of chest pains or other aggravations of cardiovascular disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardial infarction. **Side effects:** The effects of SYNTHROID (sodium levothyroxine) therapy are usually in being manifested. Side effects, when they occur, are secondary to increased rates of basal metabolism; sweating, heart palpitations, vomiting, or without pain, leg cramps, and weight loss. Diarrhea, vomiting, and nervousness have been observed. Myxedematous patients with heart disease have died from abrupt increase in dosage of thyroid drugs. Careful observation of the patient during the beginning of any thyroid therapy will alert the physician to any untoward effects.



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1 *Synthroid* is T₄.

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In most cases with side effects, a reduction of dose followed by a more gradual adjustment will result in a more accurate indication of the patient's dosage requirements without the appearance of side effects.

Dosage and Administration: The activity of 1 mg. SYNTHROID (sodium levothyroxine) is equivalent to approximately one grain of desiccated thyroid, U.S.P. Administer SYNTHROID tablets as a single daily dose. In hypothyroidism with myxedema, the usual initial adult dose is 0.1 mg. daily, and may be increased by 0.1 mg. daily until proper metabolic balance is achieved. Clinical evaluation should be made by thyroid and PBI measurements about every 90 days. Final maintenance dosage will usually range from 0.2-0.4 mg. daily. In adult myxedema, the initial dose should be 0.025 mg. daily. The

dose may be increased to 0.05 mg. after two weeks and to 0.1 mg. at the end of a second two weeks. The daily dose may be further increased at two-month intervals by 0.1 mg. until the optimum maintenance dose is reached (0.1-1.0 mg. daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded, in bottles of 100, 500, and 1000. Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, U.S.P., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent. SYNTHROID (sodium levothyroxine) for Injection may be administered intravenously utilizing 200-400 mcg. of a solution containing 100 mcg. per ml. If significant improvement is not shown the following day, a repeat injection of 100-200 mcg. may be given.

1. Braverman, L. E., Ingbar, S. H., and Sterling, K.: Conversion of Thyroxine (T₄) to Triiodothyronine (T₃) in Athyreotic Human Subjects, *J. Clin. Invest.* 49:855-64, 1970.

2. Surks, M. I., Schadow, A. R., and Oppenheimer, J. H.: A New Radioimmunoassay for Plasma L-Triiodothyronine: Measurements in Thyroid Disease and in Patients Maintained on Hormonal Replacement. *J. Clin. Invest.* 51:3104-13, 1972.



FLINT LABORATORIES

DIVISION OF TRAVENOL LABORATORIES, INC.

Deerfield, Illinois 60015

Must vasodilators
and therapy for
other diseases
come into
conflict?



not if the vasodilator is

VASODILAN[®]
(ISOXSUPRINE HCl)

the compatible vasodilator...
no treatment conflicts reported

The cerebral or peripheral vascular disease patient often has coexisting disease¹ which calls for another drug along with his vasodilator. It may be a hypoglycemic, miotic, antihypertensive, diuretic, anticoagulant, corticosteroid, or coronary vasodilator.

Vasodilan is not incompatible with any of these drugs—no treatment conflict has been reported. And, unlike other vasodilators, Vasodilan has not been reported to affect carbohydrate metabolism, liver function, or intraocular pressure—or to complicate treatment of diabetes, hypertension, peptic ulcer, glaucoma, or liver disease.

In fact, there are no known contraindications to the use of Vasodilan in recommended oral doses, other than that it should not be given in the presence of frank arterial bleeding or immediately postpartum.

Indications: Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.
3. Threatened abortion.

Final classification of the less-than-effective indications requires further investigation.

Composition: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.

Dosage and Administration: 10 to 20 mg. three or four times daily.

Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Adverse Reactions: On rare occasions, oral administration of the drug has been associated in time with the occurrence of severe rash. When rash appears, the drug should be discontinued. Occasional overdosage effects such as transient palpitation or dizziness are usually controlled by reducing the dose.

Supplied: Tablets, 10 mg.—bottles of 100, 1000, 5000 and Unit Dose; 20 mg.—bottles of 100, 500 and Unit Dose.

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734017

1. Gertler, M. M., et al.: *Geriatrics* 25:134-148 (May) 1970.

Mead Johnson LABORATORIES

ANNOUNCEMENTS

Graduate Courses in Medicine

The following schedule, in the series, "Advances in Medicine," has been announced by the Bergen Pines County Hospital, Paramus. Sessions are held in the hospital auditorium from 9:30 to 11 a.m. on the Wednesdays indicated and collation is offered at 9 o'clock. For further information write to the Office of Medical Education, Bergen Pines County Hospital, Paramus 07652.

January 16	Fulminant Hepatic Failure
January 23	Diet and Coronary Atherosclerosis
January 30	Infective Endocarditis
February 6	Coma
February 13	Headache
February 20	Clinical Pathology Conference
February 27	Unusual Causes of Heart Failure

Psychiatric Graduate Programs

Fair Oaks Hospital in Summit, in cooperation with the Academy of Medicine of New Jersey, has arranged the following programs in the series, "Current Topics in Psychiatry:"

January 23	Diabetics with Mental Illness Robert Areson, M.D.
February 6	Headaches John R. Graham, M.D.
February 20	Electro-Convulsive Therapy Richard Abrams, M.D.

Sessions are held from 3 to 4:30 p.m. (Wednesdays) at the hospital, 19 Prospect Street, Summit. Further information may be obtained from Granville L. Jones, M.D., Director of Research and Education.

Graduate Lectures in Surgery

The following programs have been announced for the 1973-1974 "Distinguished Lecture Series" offered by the Department of Surgery of the New Jersey Medical School, CMDNJ:

January 28	Benign Lesions of the Breast William T. Fitts, Jr., M.D., Chairman Department of Surgery University of Pennsylvania School of Medicine
February 11	Metastatic Tumors of the Lung Paul C. Adkins, M.D., Chairman Department of Surgery George Washington University School of Medicine
March 22	Dissecting Aneurysm Charles A. Hufnagel, M.D. Department of Surgery Georgetown University School of Medicine

Lectures are held at 4 p.m. in the amphitheater, 2nd floor, Martland Hospital, Newark. There is no charge. Guarded parking is available in parking lot M, 12th and Bergen Streets. For further information, please write to Eric J. Lazaro, M.D., Professor of Surgery, Martland Hospital Unit, CMDNJ, 65 Bergen Street, Newark 07107.

EENT Lectures in Jerusalem

Please note that the ten-day conference on ophthalmology and otolaryngology, to be held in Jerusalem from February 14 to 24, 1974, announced in the November 1973 issue of *The Journal*, page 882, has been postponed to October 1974. More complete notice will appear in a later issue.

Clinical Problems in Gastroenterology

A conference on clinical problems in gastroenterology will be held in Jerusalem and Rome, March 14-24, 1974. Registration is \$100. Topics to be covered are peptic ulcer, inflammatory bowel disease, anorectal diseases, diets and diarrhea, immunologic disorders, chronic liver disease, diverticular disease, and irritable bowel syndrome. Two symposia will be presented: "Gastroenterology in Israel" and "Special Problems in Malabsorption." A tour package is available for those interested. Please direct inquiries to the Symposia Medica Foundation, 305 East 24th Street, New York 10010.

Postgraduate Course in Radiology

A postgraduate course in radiology of the head and neck is offered March 14-16, 1974 by Columbia University College of Physicians and Surgeons. The course is open to radiologists, otolaryngologists, and other physicians interested in the ear, the paranasal sinuses, the oral cavity, the pharynx, and the larynx. The use of tomography as an aid to diagnosis will be emphasized. Fee is \$125. For further information, please write to Jose M. Ferrer, Jr., M.D., Associate Dean, 630 West 168th Street, New York 10032.

Clinical Conference on Ophthalmology

On May 8 and 9, 1974, at the Marriott's Essex House in New York, the annual New York Eye and Ear Infirmary Clinic Conference will be held. Topics to be covered include tumors of the orbit, lesions of the optic nerve, vitreous surgery, and genetics, among others. Registration fee is \$100, including luncheons each day. Residents may participate for \$25. For further information please write to the Conference Registrar, New York Eye and Ear Infirmary, 310 East 14th Street, New York, New York 10003.

Course in Pediatric Therapy

Columbia University College of Physicians and Surgeons, in conjunction with Babies Hospital of the Children's Medical and Surgical Center of New York, offers a graduate course on current concepts and recent advances in pediatric therapy. The dates are June 5-7, 1974, at the Barbizon Plaza Hotel, New York. Tuition is \$175; residents \$100. For further information and application write to Jose M. Ferrer, Jr., M.D., Associate Dean, 630 West 168th Street, New York 10032.

Symposia on Chest Diseases in London

From July 7 to July 12, 1974, the International Congress on Diseases of the Chest will meet at the Royal Festival Hall in London, England. The meeting is sponsored by the International Academy of Chest Diseases and Surgery, which is affiliated with the American College of Chest Physicians. The theme is the

interface between heart and lung diseases and will feature medical symposia on airway obstruction, lung defense and clearance, coronary heart disease, rheumatic mitral valve disease, and the reaction of the respiratory tract to irritants. In addition to the symposia there will be luncheon panels, scientific seminars, and motion pictures.

Until April 1, 1974, registration fee for ACCP members is \$55; \$85 for non-members. After that date the charge is \$65 and \$95. For further information, please write to Bradford W. Claxton, American College of Chest Physicians, 112 East Chestnut Street, Chicago.

Course in Electroencephalography

From July 22 to 24, 1974, in Seattle, Washington, the American Electroencephalography Society will hold its annual continuation course in current practice of clinical electroencephalography. The course is approved for credit by the AMA Council on Medical Education. Details of the program and information about accommodations are available from the director of the course, Donald K. Klass, M.D., Mayo Clinic, Rochester, Minnesota 55901.

Joint Society of Medicine and Law

A new organization, the American Society of Law and Medicine, has evolved from the former Massachusetts Society of Law and Medicine, to act as a catalyst to bring together, for the purpose of continuing education, the disciplines of law, medicine, insurance, education, and judiciary for common understanding and exchange of ideas. Membership is open to anyone interested. Current dues are \$10 a year, and a membership application may be obtained from the national headquarters. Symposia are being arranged for this winter and next year, including a Greek Island cruise next summer, when the program will be medical malpractice problems. And the following spring (1975) a week's seminar on medico-legal matters will be held in Puerto Rico. For further information, please write to the Society at 454 Brookline Avenue, Boston, Massachusetts 02215.

LETTERS TO THE JOURNAL

Further Comment on Medical Ethics

November 12, 1973

Dear Sir:

As a neutral observer to the editorial in the September 1973 *Journal* entitled, "The Temptation to Advertise," and also the responding comments by Maurice J. Leon, M.D., appearing in the November 1973 *Journal* entitled, "Death of an Ethical Principle," I would like to offer the following comments:

The AMA Principles of Medical Ethics patently state that a physician "should not solicit patients." In regard to the use of a physician's name in a news story, the position of the AMA Judicial Council is currently embodied in the following statement which I quote:

"The Principles of Medical Ethics prohibit the solicitation of patients. They do not prohibit the reporting of proper news. When an accident or event occurs which is newsworthy and if the facts surrounding it are published, there would be no way, and seldom any reason, to stop a newspaper from reporting as a matter of fact that the patient was seen by a named doctor for treatment. Should the newspaper so report, the doctor should not be criticized because the newspaper made this factual observation."

I certainly do not view that position as presenting an opportunity for physicians to engage in commercial advertising practices, solicitation of patients, or medical streetwalking. We must recognize, however, that in the course of treating a public figure or pioneering a medical advance, the physician himself may truly become a newsworthy event. I am sure the medical profession as a whole recognizes the existence of legitimate newsworthy occurrences such as these.

The Judicial Council and the Judicial Committees of MSNJ and the Component Societies stand ready and able to process complaints against members who have solicited patients

or fostered self-aggrandizement, provided, of course, the complaining party can cite specific instances of transgressions.

New Jersey has not pioneered a step backward, but has in fact pioneered a step forward. In 1970 a bill controlling advertising was drafted by The Medical Society of New Jersey, was presented to the legislature, was favorably considered, and was signed into law on February 16, 1971. I refer specifically to the Revised Statutes of New Jersey 45:9-16, et seq.

That section of law is controlling in New Jersey and establishes and maintains a professional and well-reasoned parameter that should satisfy any concerned practitioner.

(Signed) Vincent A. Maressa
Executive Director, MSNJ

Reduction of Hospital Costs: Communication and Gentle Pressure

November 17, 1973

Dear Sir:

I read the editorial, "Will Unrealistic Standards Force Hospitals into Bankruptcy?" in the November 1973 *Journal*, Vol. 70, No. 11, page 818.

The implication is that hospitals will go bankrupt, close floors, cut back services, unless the government gives them more money.

I submit, sir, that there are other alternatives. Take my hospital, Muhlenberg, for example.

The hospital does not communicate with us (assuming they know) as to which of our practices are expensive and which cheap—we don't know the price of the laboratory tests or the medicines and are under no pressure to order fewer tests or order cheaper ones. I believe if there were communication, and perhaps gentle pressure, the costs of hospitalization could be greatly reduced.

Furthermore, we have a "teaching program." Many tests are ordered "for teaching purposes." Again—no communication with either the attendings, or the house staff. We don't know if insurance is picking up the bill, or the teaching program, or grants, or if the hospital gets stuck with the bill for ward patients. Nor is the house staff trained in the economics of what they do. (And there are articles available in the literature demonstrating that there are expensive doctors and "cheaper" doctors, and that you can't distinguish a quality of care—they both cure patients just as well; just that some order more tests.)

Furthermore, we have other pressures to run up the cost of medicine—to order tests to impress the teaching hospitals with the tests we have done; to impress the chief of staff, or chief of the department; or the Pediatric Society. (I have omitted tests done for "insurance" or malpractice or "fear of lawsuit" reasons, because I believe if you do high quality care as you would want to be treated and explain your actions to the patient, you don't have to worry about lawsuits.)

So—something must be done to cut the cost of hospitalization. And there is no clue that physicians, or medical schools, or hospitals, or patients will take the lead in this. So the job is left to the government. And I am glad the government is attempting the job.

(Signed) Fred Lathrop, Jr.

Recommendation: Dispose of Foundation

December 3, 1973

Dear Sir:

I have just sent a check to the Union County Medical Society. It was in payment of an "assessment" which was passed by the majority of the House of Delegates of The Medical Society of New Jersey in May 1973, and that payment was made under protest.

While I do not share the rosy optimism of those who seek to repeal the "Bennett Amendment," neither do I share the equally rosy optimism of those who believe that the N.J. Foundation for Health Care Evaluation will have an effective voice in P.S.R.O. arrangements or operations in New Jersey.

The Journal of The Medical Society of New Jersey published, in the November 1973 issue (p. 855), a statement by Dr. R. E. Lang, President of the Foundation. It is interesting to note that he said, regarding H.E.W. planning process, that the majority of county medical societies felt that that process indicated that "physician input is not valued and that decisions will be made regardless of our recommendations." That is a paraphrase of what was said during the House of Delegates meeting and at its reference committee by those who opposed this assessment on the Society's members, but now, ironically, it is coming from the President of the Foundation.

However, the most interesting feature is that in his next sentence Dr. Lang concludes that "H.E.W. succeeded only in creating a credibility gap of real proportions." No one would accuse me of being an advocate of H.E.W. policies, but I have to say that the "Bennett Amendment" and H.E.W. are not the creators of any credibility gap. H.E.W. has not suggested that its decisions were going to be made with regard for our recommendations or that it would ever value physician input. Those ideas were sold to the Society's House of Delegates by Foundation advocates; any credibility gap was created by the Foundation—though it would be better described as a demonstration of the credulousness of the Foundation.

Perhaps now the Foundation is beginning to learn what it could have learned at the House of Delegates in Atlantic City where a delegate said of P.S.R.O., "the Foundation may propose, but the government will dispose." But the Delegates did not learn then either, and instead the Foundation was granted money from the pockets of New Jersey physicians to the tune of more than \$200 a day for a year

with, presumably the fond hope that H.E.W. was going to let the Foundation do the disposing. Ironically, the law required no positive action of any kind by the Medical Society.

The establishment of the Foundation as an entity separate from the Medical Society was based on the provision in the "Bennett Amendment" that a P.S.R.O. had to be an independent voluntary group and could not be an established medical society. Apart from activity as a P.S.R.O. (which apparently will not take place), there is no significant function of the Foundation which could not be carried on by The Medical Society of New Jersey alone or in cooperation with other groups. So, since the government will dispose

regardless of the Foundation's proposals, perhaps May 1974 and Atlantic City should be the time and place for the Medical Society's House of Delegates to allocate the Foundation's functions to appropriate councils or committees of the Society and to dispose of the Foundation. That would both put and portray The Medical Society of New Jersey in its proper posture of an organization of concerned professionals dedicated to the health of the people, an organization of professionals glad to work with anyone, including H.E.W., for the betterment of the health of the people, but not willing to be dictated to by anyone, including H.E.W.

(Signed) Philip J. G. Quigley, M.D.

MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information regarding accreditation, please contact the sponsoring organization(s).

1974
January

CDMNJ and Academy of Medicine
of New Jersey
New Jersey Medical School, Newark

Helene Fuld Hospital and
Academy of Medicine of New Jersey
Helene Fuld Hospital, Trenton

- 15 *Modern Theories of Aging*
- 22 *Free-Radical Mechanism of Aging Process*
- 22 *Metabolic Changes in Senescence*
- 29 *Age-Related Alterations in the Immune System*
- 29 *Pathology in the Aged as Opposed to Pathology of Aging*

Middlesex General Hospital, American
Academy of Family Practice, and
Academy of Medicine of New Jersey
Middlesex General Hospital, New Brunswick

- 16 *Office Evaluation and Management of the New Hypertensive Patient*
- 23 *Medical Complications of Acute Myocardial Infarction*
- 30 *Surgical Considerations in Management of Myocardial Infarction*

- 16 *Acute Abdomen*
- 23 *Inflammation of Large Bowel*
- 16 *Academy of Medicine of New Jersey
Trenton Psychiatric Hospital, Trenton
Alcoholism*
- 16 *Academy of Medicine of New Jersey
VA Hospital, East Orange
Respiratory Phenomena and Metabolic Acidosis*
- 17 *Academy of Medicine of New Jersey
Englewood Hospital, Englewood
Newer Concepts of Hepatitis*
- 17 *New Jersey Radiological Society and
Academy of Medicine of New Jersey
Englewood Hospital, Englewood
Radiology Therapy*
- 17 *New Jersey Thoracic Society and
Academy of Medicine of New Jersey
Christ Hospital, Jersey City
Chest Conference*
- 18 *Academy of Medicine of New Jersey
Perth Amboy General Hospital
Breast Cancer*

- 18 Academy of Medicine of New Jersey
St. Francis Hospital, Trenton
Gastrointestinal Hemorrhage
 - 21 Academy of Medicine of New Jersey
Ancora Psychiatric Hospital, Hammonton
*Medical-Surgical Emergencies in
Psychiatric Practice*
 - 22 Academy of Medicine of New Jersey
Warren Hospital, Phillipsburg
Acupuncture
 - 23 New Jersey Thoracic Society
Rutgers Medical School, Piscataway
Pathogenesis of Emphysema
 - 23 Academy of Medicine of New Jersey
Fair Oaks Hospital, Summit
Difficult Diabetics With Mental Illness
 - 23 Academy of Medicine of New Jersey and
St. Joseph's Hospital
St. Joseph's Hospital, Paterson
Clinical Symposia—Series II: Diabetes
 - 24 Radiological Society of New Jersey and
Academy of Medicine of New Jersey
Hospital Center of Orange
Venography of the Upper and Lower Extremities
 - 28 CMDNJ, New Jersey Medical College and
Academy of Medicine of New Jersey
Martland Hospital, Newark
Benign Lesions of the Breast
 - 30 Academy of Medicine of New Jersey
College of Medicine and Dentistry, Newark
Use of Blood Products for Transfusion
- February
- 4 Academy of Medicine of New Jersey
Ancora Psychiatric Hospital, Hammonton
Medical-Legal Aspects of Medicine and Surgery
 - 5 New Jersey Dermatological Society and
Academy of Medicine of New Jersey
St. Michael's Medical Center, Newark
Antibiotic Therapy
 - 5 Academy of Medicine of New Jersey
Fairleigh Dickinson University
School of Dentistry, Hackensack
Oral Medicine
 - CMDNJ and Academy of Medicine
of New Jersey
New Jersey Medical School, Newark
 - 5 *Functional Adaptation During Aging*
 - 5 *Aging of Blood Vessels*
 - 12 *Hemodynamic Changes Associated with Aging*
 - 12 *Clinical Cardiology in the Aged*
 - 19 *Electrocardiography and Other Diagnostic
Procedures in Aged*
 - 26 *Gastrointestinal Changes in Aging Process*
 - 26 *Nutritional Aspects in Gerontology*
 - Middlesex General Hospital, American
Academy of Family Practice, and
Academy of Medicine of New Jersey
Middlesex General Hospital, New Brunswick
 - 6 *Hormones, Hypertension, and Vascular Disease*
 - 13 *Perspectives in Diabetes*
 - 20 *Trends in Hyperalimentation*
 - 27 *Biological Role of the Lymphocyte*
 - Helene Fuld Hospital and
Academy of Medicine of New Jersey
Helene Fuld Hospital, Trenton
 - 6 *Pancreatic Diseases*
 - 27 *Respiratory Insufficiency*
 - 11 CMDNJ, New Jersey Medical College and
Academy of Medicine of New Jersey
Martland Hospital, Newark
Metastatic Tumors of the Lung
 - 12 New Jersey Dermatological Society
Mountainside Hospital, Montclair
Use and/or Abuse of Antibiotic Therapy
 - 12 Academy of Medicine of New Jersey
Bayonne Hospital, Bayonne
Diagnosis and Treatment of Hypertension
 - 13 Academy of Medicine of New Jersey
United Presbyterian Hospital, Newark
Ulcerative Colitis
 - 15 Academy of Medicine of New Jersey
St. Francis Hospital, Trenton
Acid Base Balance
 - 15 Academy of Medicine of New Jersey
Perth Amboy General Hospital, Perth Amboy
Treatment of Non-operable Solid Tumors
 - 20 Academy of Medicine of New Jersey
VA Hospital, East Orange
Resistance to Pulmonary Infection
 - 20 Academy of Medicine of New Jersey and
St. Joseph's Hospital
St. Joseph's Hospital, Paterson
Clinical Symposia—Series VI: Neurology
 - 20 Academy of Medicine of New Jersey
Helene Fuld Hospital, Trenton
Acupuncture
 - 21 Academy of Medicine of New Jersey
Englewood Hospital, Englewood
Laboratory Interpretations
 - 26 Academy of Medicine of New Jersey
Warren Hospital, Phillipsburg
Diagnosis in the Anemic Patient
 - 27 New Jersey Thoracic Society
Hoffmann-La Roche, Nutley
New Techniques in Chest Diseases
 - 28 Radiological Society of New Jersey and
Academy of Medicine of New Jersey
Hospital Center at Orange
Tumors of the Small Bowel

March

- CMDNJ and Academy of Medicine
of New Jersey
New Jersey Medical School, Newark
- 5 *Regressive Changes of the Oral Cavity in the Aged*
- 12 *Effects of Aging on Endocrine System*
- 12 *Reproduction Changes in Senility*
- 19 *Musculo-Skeletal Changes and Rehabilitation in Aged*
- 26 *Dermatological Changes in Old Age*
- Middlesex General Hospital, American
Academy of Family Practice, and
Academy of Medicine of New Jersey
Middlesex General Hospital, New Brunswick
- 6 *Paraneoplastic Syndromes*
- 13 *Neurological Complications of Systemic Cancer*
- 20 *Metabolic Bone Disease*
- 27 *Untoward Effects of Long-Term Steroid Therapy*
- Helene Fuld Hospital and Academy of
Medicine of New Jersey
Helene Fuld Hospital, Trenton
- 6 *Advances in Diabetes Mellitus*
- 13 *Thyroid Disease*
- 20 *Disorders of Pituitary Adrenal Axis*
- 27 *Allergic Disorders*
- 10-13 New Jersey Chapter, American Academy of
Family Practice
Cherry Hill Inn, Cherry Hill
Annual Meeting
- 12 Academy of Medicine of New Jersey
Bayonne Hospital, Bayonne
Medical Care in Emergency Room
- 12 New Jersey Dermatological Society and
Academy of Medicine of New Jersey
Barnert Hospital, Paterson
Host Defenses in Malignant Melanoma
- 12 Academy of Medicine of New Jersey
Paul Kimball Hospital, Lakewood
Medical-Legal Aspects of Medicine and Surgery
- 13 Academy of Medicine of New Jersey
Hunterdon Medical Center, Flemington
Infectious Diseases
- 18 American Academy of Family Practice and
Academy of Medicine of New Jersey
Ancora Psychiatric Hospital, Hammonton
Electrolyte Imbalance
- 20 Academy of Medicine of New Jersey
Trenton Psychiatric Hospital, Trenton
Drug Addiction

- 20 Academy of Medicine of New Jersey
VA Hospital, East Orange
Immunotherapy with BCG
- 21 Academy of Medicine of New Jersey
Englewood Hospital, Englewood
Proper Use of Antibiotics
- 21 Jersey City Medical Society, Nephrology
Society of New Jersey, and Academy of
Medicine of New Jersey
Jersey City Medical Center
Renal Disease
- 21 New Jersey Radiological Society and
Academy of Medicine of New Jersey
Pascack Valley Hospital, Westwood
Radiology Therapy Sessions
- 24 CMDNJ—New Jersey Medical School and
Academy of Medicine of New Jersey
Location to be announced
Problems in Obstetrics and Gynecology
- 26 Academy of Medicine of New Jersey
Warren Hospital, Phillipsburg
Diagnosis in Neurology and Neuro-Surgery
- 28 Radiological Society of New Jersey and
Academy of Medicine of New Jersey
Hospital Center at Orange
Lumbar Spondylosis
- 27 American Heart Association and Academy of
Medicine of New Jersey
Holiday Inn, Jersey City
Nurse's Education Program

April

- CMDNJ and Academy of Medicine
of New Jersey
New Jersey Medical School, Newark
- 2 *Body Fluids and Electrolyte Balance in Aged*
- 2 *Renal Function in Aged*
- 9 *Changes in Pulmonary Function with Age*
- 9 *Effect of Aging on Drug Response*
- 16 *Response of Aged to Anesthetic Procedures*
- 16 *Response of Aged to Operative Stress*
- 23 *Neurological Changes During Senility*
- 23 *The Aging Eye*
- 23 *Psychiatric Problems of Aged*
- Middlesex General Hospital, American
Academy of Family Practice, and
Academy of Medicine of New Jersey
Middlesex General Hospital, New Brunswick
- 3 *Eye Care in Family Practice*
- 10 *Gynecological Problems in Office Practice*
- 17 *Emergencies of Pregnancy and Labor*
- 24 *Pulmonary Function Testing*

Helene Fuld Hospital and Academy of
Medicine of New Jersey
Helene Fuld Hospital, Trenton

- 3 *Skin Manifestations of Systemic Disease*
- 17 *Joint Disease*
- 24 *Hematological Manifestations of Systemic Disease*
- 4 Academy of Medicine of New Jersey
Helene Fuld Hospital, Trenton
New Developments in Scanning
- 5 Academy of Medicine of New Jersey
St. Francis Hospital, Trenton
Renal Diseases
- 9 Academy of Medicine of New Jersey
Bayonne Hospital, Bayonne
Anemic Patients
- 10 Academy of Medicine of New Jersey
Runnells Hospital, Berkeley Heights
Acupuncture
- 15 Academy of Medicine of New Jersey
Ancora Psychiatric Hospital, Hammonton
Alcoholism
- 17 Academy of Medicine of New Jersey and
St. Joseph's Hospital
St. Joseph's Hospital, Paterson
Clinical Symposia—Series VIII: Hypertension
- 17 Academy of Medicine of New Jersey
Rod's 1920 Roadhouse, West Orange
Fertility
- 17 Academy of Medicine of New Jersey
VA Hospital, East Orange
Respiratory Failure
- 18 Academy of Medicine of New Jersey
Englewood Hospital, Englewood
Bleeding Diseases
- 23 Academy of Medicine of New Jersey
Warren Hospital, Phillipsburg
Differential Diagnosis of Arthritis
- 25 Radiological Society of New Jersey and
Academy of Medicine of New Jersey
Hospital Center at Orange
Total Body Scanning

May

Middlesex General Hospital, American
Academy of Family Practice, and
Academy of Medicine of New Jersey
Middlesex General Hospital, New Brunswick

- 1 *Environmental Cancer in the Year 2000*
- 8 *Unusual Causes of Heart Failure*
- 15 *Hemorrhagic and Septic Shock*
- 22 *Developments in Infectious Diseases*
- 29 *ENT in Office Practice*

74

Helene Fuld Hospital and Academy of
Medicine of New Jersey
Helen Fuld Hospital, Trenton

- 1 *Coagulation Defects*
- 22 *Eye Manifestations of Systemic Diseases*
- 29 *Early Recognition of Brain Tumor*
- 3 Academy of Medicine of New Jersey
St. Francis Hospital, Trenton
Differential Diagnosis of Jaundice
- 7 New Jersey Dermatological Society
Chanticleer Restaurant, Milburn
Annual Dinner Meeting
- 11-14 The Medical Society of New Jersey
Haddon Hall, Atlantic City
Annual Meeting
- 14 Academy of Medicine of New Jersey
Bayonne Hospital, Bayonne
Proper Use of Antibiotics
- 15 Academy of Medicine of New Jersey
VA Hospital, East Orange
Transfer Factor and Its Use in Bacterial and Fungal Infection
- 16 New Jersey Radiological Society and
Academy of Medicine of New Jersey
Pascack Valley Hospital, Westwood
Radiology Therapy
- 17 Academy of Medicine of New Jersey
Perth Amboy General Hospital, Perth Amboy
Clinical Endocrinology
- 22 Academy of Medicine of New Jersey
Trenton Psychiatric Hospital, Trenton
Suicide
- 23 Radiological Society of New Jersey and
Academy of Medicine of New Jersey
Hospital Center at Orange
Arthrography
- 24 CMDNJ—New Jersey Medical School and
Academy of Medicine of New Jersey
Location to be announced
Management of the Fetus at Rest
- 29 CMDNJ—New Jersey Medical School and
Academy of Medicine of New Jersey
Location to be announced
The Problem Fetus

June

Helene Fuld Hospital and
Academy of Medicine of New Jersey
Helene Fuld Hospital, Trenton

- 5 *Spinal Cord Lesions*
- 19 *Stroke Syndrome*
- 5 Academy of Medicine of New Jersey
Roche Laboratories, Nutley
Stress and the Gastrointestinal Tract

OBITUARIES

Dr. Raymond E. Banta

Raymond E. Banta, M.D., a Bergen County surgeon, died on October 26, 1973, at the age of 63. A Fellow of the American College of Surgeons and of the American Society of Abdominal Surgeons, and a member of the prestigious New Jersey Society of Surgeons, Dr. Banta had been on the staff at Passaic General, Chilton Memorial in Pompton Plains, and the Valley Hospital in Ridgewood. He was a graduate of New York University Medical College, class of 1935, and did post-graduate work in surgery at Bellevue Medical Center in New York.

Dr. Leon E. DeYoe

At the grand age of 83, Leon E. DeYoe, M.D., an emeritus member of our Passaic County Medical Society, died on November 16, 1973. He received his medical degree from Cornell University Medical College in 1915, and after two years of graduate study in surgery, he opened an office in Paterson, where he practiced until retirement to Franklin Lakes some years ago. He was a 1965 recipient of MSNJ's Golden Merit Award. Dr. DeYoe was a diplomate in surgery and a Fellow of the American College of Surgeons. He held staff appointments at Paterson General, Valley Hospital in Ridgewood, and Chilton Memorial in Pompton Plains. He served as medical officer in both world wars—Captain in the Army Medical Corps in World War I, and during World War II he served his country as Lieutenant Commander in the Navy.

Dr. Brayton E. Failing

One of Essex County's senior members, Brayton E. Failing, M.D., died on October 6, 1973 at the grand age of 93. Dr. Failing had practiced ophthalmology and otolaryngology for many years in the Newark area, before retirement in the late 1950's. He had earned his

M.D. degree from Cornell University Medical College in 1907 and after a short period in general practice in Atlantic Highlands, where he was active on the Board of Health, he decided to specialize in EENT, and moved his offices to Newark. He was on the staff at Newark Eye and Ear Infirmary, and was a member of the Academy of Medicine of New Jersey. Dr. Failing was the recipient of MSNJ's Golden Merit Award in 1957.

Dr. Sidney Friedenber

On November 7, 1973, Sidney Friedenber, M.D., a member of our Camden County Medical Society, died at his home in Tuckerton, where he also maintained offices. Born in 1910, Dr. Friedenber was a graduate of University of Pennsylvania Medical School in 1937. A specialist in dermatology, he held staff appointments at Einstein and Hahnemann Hospitals in Philadelphia, and at West Jersey Hospital in Camden and Berlin.

Dr. Ralph Gosper

One of Camden County's general practitioners, Ralph W. Gosper, M.D., died on October 24, 1973. Born in 1913, he received his medical degree from Temple Medical School in 1941 and following internship in Philadelphia, came to Pennsauken and served the people of that area for over thirty years. Dr. Gosper had been on the staff at West Jersey Hospital in Camden, and was a member of the American Academy of Family Practice.

Dr. Joseph F. Juliani

Word has just been received of the death on October 4, 1973, of Joseph F. Juliani, M.D. retired general practitioner from Essex County. Dr. Juliani was born in Italy in 1897 and after graduation from the Royal University of Naples Medical College in 1923, he came to the United States and entered into the practice of medicine in Newark, where he maintained offices until retirement five years ago.

Dr. Irving J. Lehman

Irving J. Lehman, M.D., one of Essex County's senior practitioners, died on October 24, 1973, at the age of 78. A dermatologist, long associated with Beth Israel, Martland, and St. Michael's Hospitals in Newark, Dr. Lehman had won his M.D. degree at New York University in 1924. He was a member of the New Jersey Dermatological Society and a Fellow of the American Academy of Dermatology and Syphilology.

Dr. Sam Lemkin

Word has just been received of the death on May 5, 1973, of Sam Lemkin, M.D., a senior member of our Essex County Medical Society. Born in 1907, he was a graduate of the Medical College of the State University of South Carolina, class of 1935. He returned to his native city of Newark and entered the practice of industrial medicine and surgery. He was on the staff at Beth Israel and Crippled Children's Hospitals in Newark. Dr. Lemkin was a colonel in the Air Force and served from 1941 to 1946 and again from 1951 to 1953. He was a member of the Academy of Medicine of New Jersey, the Military Surgeon's Association and the Aero Medical Association.

Dr. Elias E. Long

On October 23, 1973, Elias E. Long, M.D., a member of our Monmouth County component, died after a long illness. Born in Portland, Maine, in 1915, he had practiced general medicine and pediatrics in the Red Bank area since 1945. Dr. Long's medical degree came from the University of Chicago Medical School, class of 1939. He had recently accepted appointment in the department of biological sciences at his alma mater (now known at the Pritzker School of Medicine of the University of Chicago) and had anticipated moving to the Chicago area after the first of the year. Dr. Long was on the staff at Monmouth Medical Center in Long Branch and Riverview Hospital in Red Bank and had been active in community affairs, having been physician for the Little Silver school system for many years.

Dr. John L. Meeker

In the 105th year of his age, death claimed John L. Meeker, M.D., who had been a general practitioner from the time of his graduation from Baltimore College in 1903 until past the age of 90, although officially "retired" since 1950. Dr. Meeker had practiced in Newark until the beginning of World War I, during which he commanded a 400-bed hospital outside Marseilles. After release from the military, he established his practice in Summit and was on the staff at Overlook Hospital there. He was an emeritus member of our Union County Medical Society, and was a recipient of MSNJ's Golden Merit Award in 1957.

Dr. Jerome J. Reich

Word has just been received of the death on September 10, 1973, of one of Union County's senior members, Jerome Joseph Reich, M.D. A general practitioner of the "old school," Dr. Reich had served the people of Elizabeth and surrounding area since 1928. Born in 1898, he was graduated from the George Washington University School of Medicine in 1927. He was a member of the American Academy of Family Practice and of the Academy of Medicine of New Jersey. He was active in civic affairs and, among others, had been Hillside Township physician and, from 1932 to 1957, had served as school physician in his home community of Elizabeth.

Dr. Timothy H. Spillane

Timothy H. Spillane, M.D., a Phillipsburg physician for 49 years, died suddenly on November 18, 1973. Born in 1896, he was one of Warren County's senior general practitioners. He was a graduate of the Medical School of Georgetown University, class of 1923, and was on the staff at the Warren Hospital in Phillipsburg. Dr. Spillane was active in his community and County Medical Society, having served a term as President of the latter in 1949-1950, and having been public school physician in Phillipsburg for many years.

BOOK REVIEWS

The Cardiac Arrhythmias. (2nd edition) Brendan Phibbs, M.D. St. Louis, Mosby, 1973. Pp. 205. Illustrated. (\$7.50)

This book deals with arrhythmias in a simple concise fashion, presenting each topic free of excessive theoretical background but carefully programed for practical use. Books about this subject are variable in complexity which makes Dr. Phibbs' contribution a real find for the student who is looking for a reasonable text. The main chapters consist of 1) Basic Anatomy and Physiology; 2) Simple Arrhythmia; 3) Complex Arrhythmia; and 4) Drugs and Techniques.

Description of the simple arrhythmia is free of jumbled syntax or multisyllabic jargon but successfully describes sinus rhythm to ectopic rhythm, actual flutter to AV block and all the aberrations in between. For once, the cardiac rhythm appears as an understandable musical symphony with harmonic overtones or clashing dissonance. The explanation and terminology are plausible.

Chapters on complex arrhythmia, as expected, require more concentration but are eventually understandable. Sample EKGs and base histories presented by the author are invaluable as tools of study. The subjects covered in this section of the book include digitalis-induced arrhythmia, sick sinus syndrome, wandering pacemakers, pre-excitation, and certain fatal arrhythmias.

The book goes one step beyond the basic books on cardiology that are used by students or interns, but is not as complicated as some of the classic texts by Chung, Katz, Pick, or Schamroth. It is an excellent text for the practicing internist, anesthesiologist, or general medical resident. Because it is paperback, thereby relatively inexpensive, it can be carried in a coat pocket or medical bag to be there when most needed. As an added attraction, the illustrations are good, the printing is clear and the index is complete.

Thank you, Dr. Phibbs, for your contribution to clarity, candor and simplicity.

Manuel J. Rowen, M.D.

The Carbo-Calorie Diet. Donald S. Mart, New York, Doubleday, 1973. Pp. 114. (Softback—\$.95)

This book consists essentially of two sections. Pages 1 to 9 explain and define the meaning of this new measurement in metabolism and nutrition. The metabolic calorie is the unit of measurement required to heat a kilogram of water one degree. It is now combined with a specific amount of carbohydrate grams to produce the unit *carbo-calorie*. Then, using a standard 1,200 calorie diet and a standard 60 gram carbohydrate diet as middle of the road reducing, a formula is devised which expresses different items of food in terms of this new unit.

The next hundred pages list food items, portions, and value in carbo-calories. In summary, buy the book, eat

between 58-100 carbo-calories and happily watch the weight disappear.

Harry M. Poppick, M.D.

Rh: The Intimate History of a Disease and Its Conquest. David R. Zimmerman. New York, MacMillan, 1973. Pp. 371. Illustrated. (\$8.95)

The reviewer wishes to congratulate the author for his detailed record of the Rh story which this book provides. A truly gossipy account, with surprisingly profound medical knowledge to be recorded by a layman, well documented in the final section labeled "notes."

As a historical treatise the photographs of persons discussed are quite appropriate. Drawings of various antibody concepts are somewhat crude but effective in illustration.

The author's statement (p. 129), "anyway to avoid this risk completely," in discussing hepatitis from transfusion, should be salted by consideration of the role of Australian Antibody testing in transfusions. Introduction of the word, "liverpudlian" should be titillating reading for embryo lexicographers. There appears to be some deletion of the text (bottom page 196 to top page 197) which should be corrected if other editions appear.

The volume possesses historical merit. It has been a task, satisfactorily completed from the reviewer's aspect, if one discounts the repetition of basic tales when recounted from another participant's viewpoint. Certainly it should impress every reader with the total inadequacy of our selection system for scientific grants-in-aid from the N.I.H. It also illustrates how those in the elite scientific leadership can knowingly thwart and disparage a new concept because they failed to think of it first. I propose this explanation because I feel that no true scientist would dare to pass final judgment on another's concepts merely because something had never been accomplished before. In science, truth is endlessly pursued in all fields of endeavor. Some paths lead to success.

The book will be long on library shelves, to be read by all interested in the history of erythroblastosis fetalis and basic immunology.

T. K. Rathmell, M.D.

Advanced First Aid and Emergency Care. American National Red Cross. Garden City, New York, Doubleday, 1973. Pp. 268. Illustrated. (Softback—\$2.50; hardback—\$3.95)

Since 1910, the American National Red Cross has provided first aid instruction to the American public and this present edition has been designed to bring up-to-current thinking all essential information required by police, fire, and first aid squads in the management of emergency care for the general public.

The text is well composed and artfully illustrated, covering subjects of wound care, respiratory emergencies, drowning resuscitation, the common poisons and their control, drugs and their abuses, burns, temperature exposures, and fractures. The book is compact and is indeed life-saving in its wealth of information—a recommended book for every home and an extra copy for every automobile for fast reference on the road.

Harry M. Poppick, M.D.

Principles of Clinical Electrocardiography. 8th Edition. Mervin J. Goldman, M.D. Los Altos, California, Lange, 1973. Pp. 400. Illustrated. (Softback—\$8.00)

Now in its 8th edition and published in six languages, this book is an excellent, concise, reliable text on its subject. The work of a single author, it is well organized by major topics into 20 chapters. The terminology and explanations are up to date and uncontroversial. Several chapters at the end, devoted to the work of reading and interpreting ECG's, are particularly helpful. References are good but almost all are old. The material on arrhythmias (with expertly simplified diagrams) alone is worth the bargain price of \$8.00. Only the expert electrocardiographer will fail to learn something here.

Norman Riegel, M.D.

Current Surgical Diagnosis and Treatment. J. Englebert Dunphy, M.D. and Lawrence W. Way, M.D., Editors. Los Altos, California, Lange, 1973. Pp. 1108. Illustrated. (Softback—\$14)

Dunphy and Way have attempted to produce a compendium of surgery between two covers with, as they say, "the needs of both medical students and practicing surgeons in mind." Unfortunately, like most compendia, no one is really satisfied totally, and the reader must oscillate between the esoteric, the sophomoric, and occasionally the superb.

While the text will better meet the needs of the medical student and the surgical intern, the excellent indexing and listing of references convenient to the subject matter make this work also of value to the senior surgeon interested in an up-to-date status of a subject. Little if anything is left to the imagination, and with the exception of such things as pacemaker implantations and pancreatic ascites, along with the absence of occasional important references, it is difficult to find any significant omissions.

The sections on blood gases and fluid balance are simple, straightforward, and worth reading by themselves to gain a practical appreciation of the subjects. Chapters on infection, antibiotics, breast disease, and chemotherapy are outstanding. An appendix consisting of rule of thumb interpretations of chemical abnormalities will endear this book to the intern still fighting the chemical battle.

To be both complete and compact is virtually impossible, but Dunphy and Way have come pretty close in producing a core of surgical information that can serve as a spring board for a dive of whatever depth the reader may choose.

James S. Todd, M.D.

The Power and the Frailty. Jean Hamburger, M.D. New York, Macmillan, 1973. Pp. 140 (\$4.95)

Deep compassion for the patient and true perception of the pathologic processes are the hallmark of a great physician. The author demonstrates his comprehension of the vast administrative machinery both public and private that attempts to regulate and control medical life today. He recites the progress that has been made by and through modern medicine and explains the problems and disadvantages that have been created by conscientious physicians and administrators through their efforts to bring the benefits of modern medicine and scientific progress to as many people as possible. This message which could have been expounded

adequately in a stimulating forty minute lecture and/or an interesting article in a medical journal has been expanded and inflated into 140 beautifully written but tedious pages.

Efforts to read this book were frustrating, because the many clever words suggested a more elusive and deeper message than that which appeared at first or second reading. Efforts to review this book were more difficult than the reading, because the under-signed hesitated to reveal his own apparent lack of erudition and comprehension by not praising the author for his exposition of medical practice, administration, research, strategy, logistics, and so on. This frustration, if not exasperation, was aggravated after reading seven laudatory reviews by professional journalists. The book is a long-winded recital of the obvious to an intelligent physician or medical administrator, and in all good conscience it would not be possible to recommend this book.

Jerome Abrams, M.D.

Handbook of Ocular Therapeutics and Pharmacology. Philip P. Ellis, M.D. and Donn. L. Smith, M.D. St. Louis, Mosby, 1973. Pp. 262 (\$14.75)

This is an up-to-date and modernized version of an excellent and very useful handbook that has been through three editions in the past decade. The book is a good reference, not only for the resident in ophthalmology, but also for the older practitioner who has read most of this in numerous journals and is gratified to find all this pertinent information in clear, concise, and well-arranged order.

The book is divided into two sections—therapeutics and pharmacology, the latter alphabetically arranged so that quick references and answers are made possible. The sections on the use of corticosteroids, therapy of uveitis, and intraocular infections are especially valuable.

This handbook deserves a place on the ophthalmologist's desk within his easy reach.

S. Jerome Greenfield, M.D.

Labor-Management Relations in the Health Services Industry: Theory and Practice. Norman Metzger and Dennis D. Pointer, Washington, D.C., Science and Health Publications, 1972. Pp. 330. Illustrated. (\$17.50)

The physician as Trustee and as Attending will find this volume of Metzger and Pointer of value despite its relatively high cost. Well written, scholarly in intent, it presents a history of the labor movement in the health industry, the actual economic and personnel needs and desires of the health worker, and predicts the future problems to be encountered in the health service arena.

Physicians who have been dismayed at the contemplation of labor unrest in their own hospitals and its potential or actual effect upon patient care would do well to read this interesting, informative, factual volume. Some physicians may recognize that their own past actions might have contributed to present labor problems. Many, hopefully, will be able to assist their hospitals in charting a course toward the future stability, efficiency, and, perhaps, happiness of their own institutions by acquisition of the background in labor-management relations provided by this excellent work.

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cially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests

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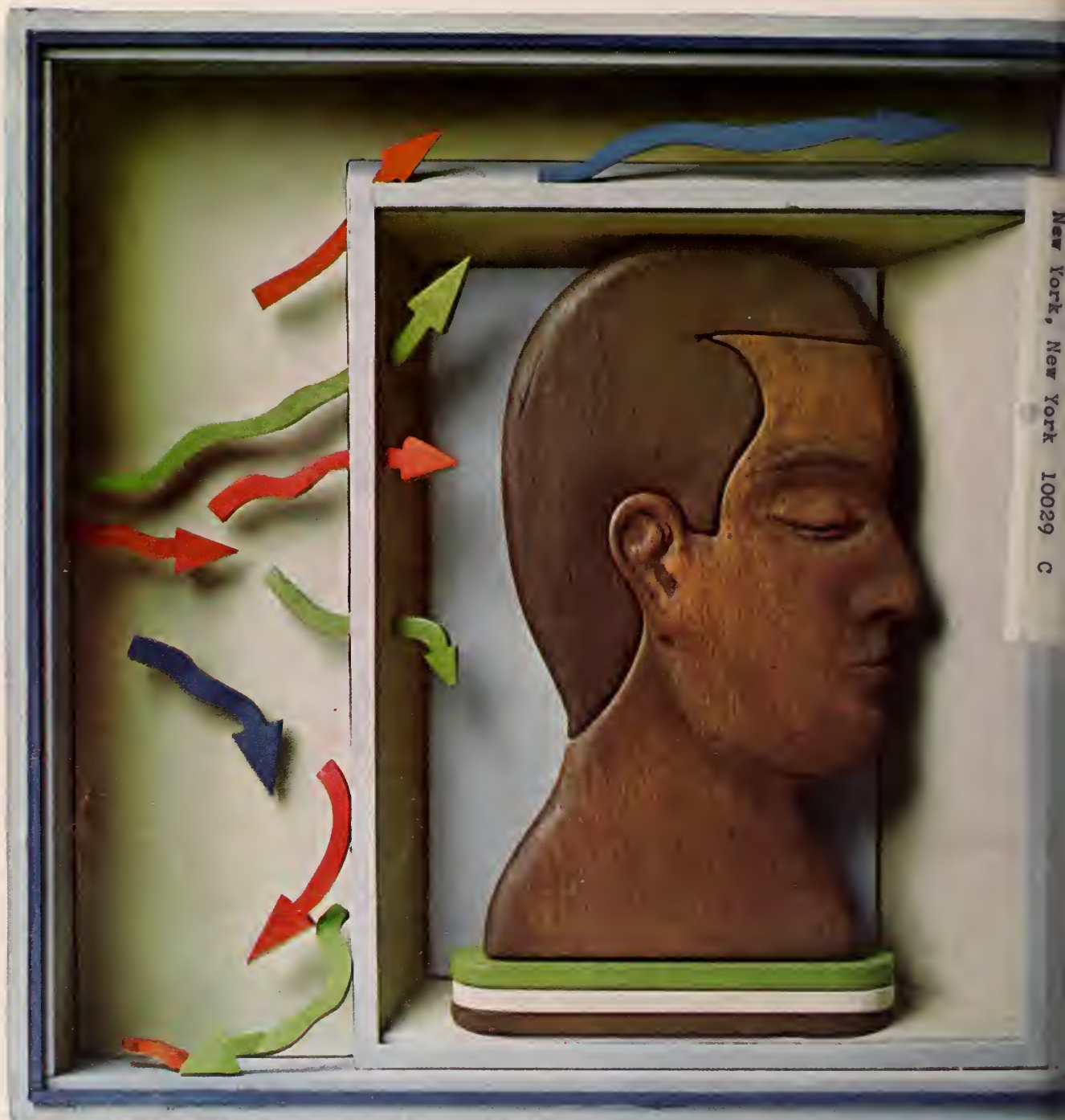


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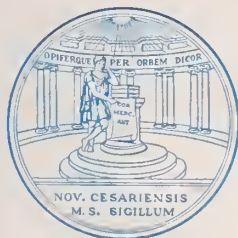
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FEBRUARY, 1974
VOL. 71, NO. 2

ANNUAL MEETING—May 11-14, 1974

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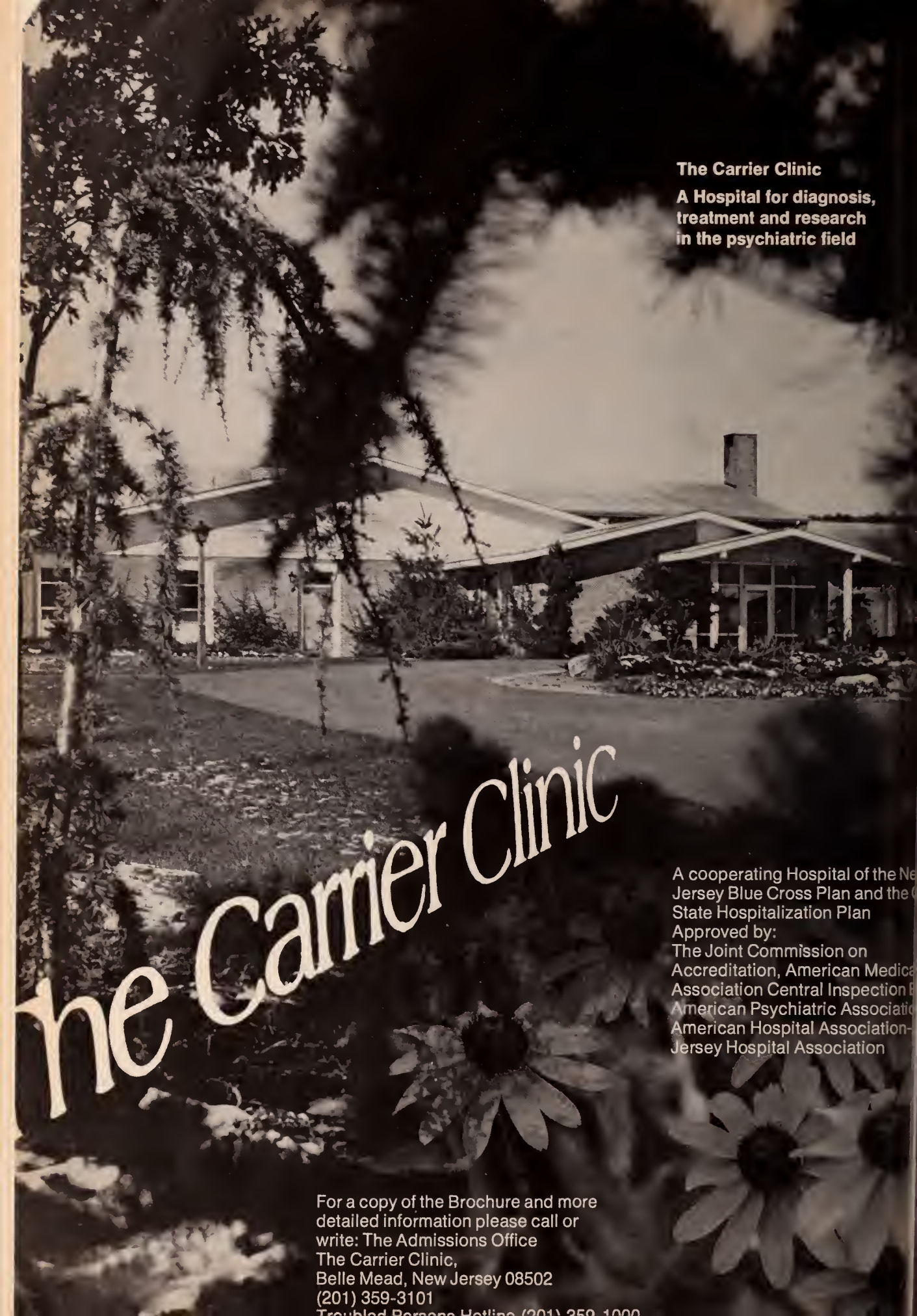
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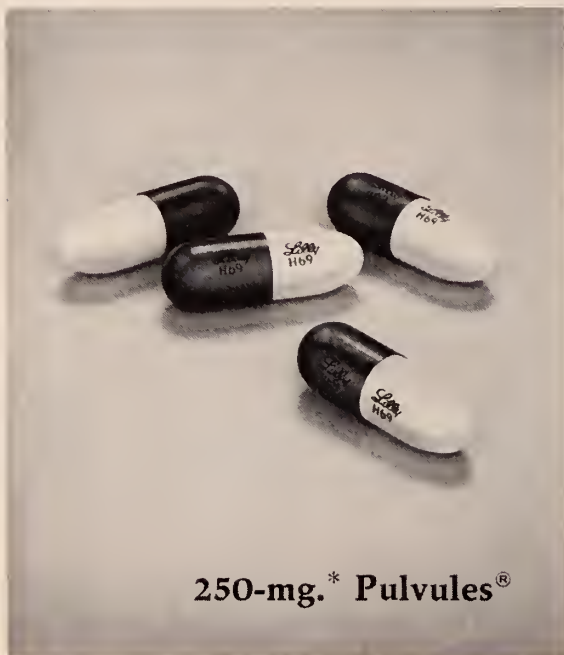
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*(A.) AP film of the chest with the patient in right lateral decubitus position demonstrates a wedge-shaped infiltrate in the left lower lung field. (B.) Posterior perfusion scan of the lungs demonstrates a defect in the left lung (arrow) at the left base in the same area as the infiltrate on the chest film. The wedge configuration in both studies suggests pulmonary infarction secondary to embolization although pneumonia and infarct may give similar appearances.

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EDITORIALS

The Deferrable Doomsday

O Tempora! O Mores! Thus said Cicero 2,000 years ago, implying that such were the times that we were all doomed. Indeed, doomsday has been predicted for several thousand years. When the glaciers of the ice age, in perhaps 6000 B.C., converted all of Europe into an icy desert, an extra-territorial observer wouldn't have taken bets on the survival of *homo sapiens*. Here was a weak two-legged animal trying to escape the tide of glaciation, an animal that could not see as well as the lynx, run as fast as the deer, or show the strength of the lion. The ice age lasted a million years, but the weak little animal survived.

Another ticket to doom was supplied in the 14th century with the bubonic plague—the black death—which killed more than half the population of Europe, and which, indeed, caused more fatalities than Hiroshima and Nagasaki combined. But Europe survived.

Today there are those who say that earth is already in its winter. What with the poisoning of the air and the oceans by pollution, the alienation of youth, crime in the streets and sometimes in higher places, the atom bomb, hatred, and bigotry—all that in a planet which is but a grain of dust in a whirling cosmos—it looks as if the world were about to end, not with a big bang, but with a soft whimper. You hear it said that this time doomsday is more credible because now, for the first time, technology has given us a way of destroying everything and everybody by a push on a button.

Yet so it must have been said in the eons of the past. There were always the prophets of entropy, who saw the universe as running down. Each century there was the cry: "This is the end." But let it be remembered that *homo sapiens* has done some wondrous things in a few millenia. We are no longer shivering in caves, or threatened with a deep freeze.

The long way we've come since the Pleistocene age should drown out the trumpets of doom.
H.A.D.

Are We in an Age of Drugs?

In the last few decades, we have come more and more to use drugs to alter our life styles and give us crutches to enable us to walk through our problems. Perhaps the development of the barbiturates as far back as 1903 was the first example of this trend, and as these medications became more refined, some people learned to depend on them to get sleep. The discovery of the mood-stimulating effect of amphetamine in the 1920's was another step forward (if it can be considered progress) in chemical methods of life adaptation. The major boosts came after World War II with the enormous burgeoning of tranquilizers. The major mood-influencing drug is, of course, alcohol. So with our broad spectrum of drugs we can use something to get us up in the morning (caffeine, for instance), to calm us down, to keep us awake, to put us asleep, to make us cheerful, to relax our inhibitions, to give us enough courage to cope, or enough courage to cop out if we find it better to cop than to cope.

With respect to addictions, the age of onset appears to be getting lower. According to Bernard Salzman, M.D., (in *Resident and Staff Physician*, Port Washington, New York, issue of October 1972) "it is not uncommon to see 12-year old addicts, or street-wise 15-year olds who have been addicted for five or six years." These early teen addictions are more likely to be to glue, cough medicine, or barbiturates than to heroin or marijuana, but sometimes people in their twenties or early thirties, having passed safely through the shoals of adolescence, fall into a heroin or alcohol habit with the onset of the emotional problems of early adult life and a knowledge of the mystique of the philosophy of "better living through chemistry." For a physician, the easiest way to treat any symptom is by prescribing a drug. It is significant that the very word "medicine"

has a double meaning: a drug and a system of practice. Perhaps it is meaningful that we are looking to another drug (methadone) to treat drug addiction.

Evidence now available does indeed suggest that methadone is helpful in managing heroin (but apparently no other kind of drug) addiction. And it is certainly true that modern medications have made life safer and pleasanter for all of us. We wouldn't want to be without insulin or antibiotics, for instance. But we must ask ourselves whether our easy prescription of medications is not paving the road to drug dependence. H.A.D.

Subsidies for Medical and Allied Students

On the theory that the doctor shortage is imaginary, there has been some federal pressure to discontinue subsidies to medical students. Two faculty members from George Washington University* put it with questionable grace this way: "It is not fair that physicians, the top income professionals, should receive the highest training subsidies." The professors also say that there are more applicants for medical school seats able to pay their own way, so that the schools should be able to support themselves from tuition fees. Indeed, the suggestion is that the medical schools can fund their own operations by raising tuition.

All of us know that there is, indeed, a shortage of medical practitioners. And we know that most medical students do not come from wealthy families. But already the Federal Administration has asked for cutbacks in subsidies to schools of nursing, podiatry, pharmacy, and optometry, and seems to be endorsing this concept of medical education for the elite. With these obstacles to medical and allied education, we may have to recruit foreign-trained physicians to increase the

number of family doctors or the number of medical graduates to practice in inner city areas. We can't have it both ways. Either we encourage the influx of foreign-educated physicians, or we are more generous in subsidies to American men and women.

H.A.D.

Uniform Claims Form

A dream may become a reality in the very near future with widespread acceptance of an AMA-sponsored health insurance claim form. Those of us who, along with our office assistants, have struggled with a multitude of forms of different sizes and colors, with little boxes, inadequate space, and burdensome queries may rejoice in the fruits of a two-year labor.

A work group established by the AMA Council on Medical Service, in conjunction with the Health Insurance Council and representatives from Medicare, Medicaid, Champus, NABSP, B.H.I., and other national organizations, have developed a product which bodes satisfaction for the needs of most health insurance plans and agencies. It should shorten office aide form-filling time, simplify physician reporting, and hasten claims processing.

The form was designed for compatibility with data collection, processing, and storage systems which will meet Professional Standards Review Organization (PSRO) requirements. Thus, a secondary gain will be the expedition of the work of PSRO screening physicians.

Physicians may order supplies of the Health Insurance Claim Forms, which are now undergoing feasibility studies by ten Blue Shield plans, prior to national acceptance. Medicare, Medicaid, and Champus officials are also on the verge of national implementation.

Time is our rarest commodity, so it behooves us to accept this innovative reporting device which aims to save 10 to 15 per cent, or more, of physician and aide insurance form completion time. A.K.

*Professor C. T. Stewart and Corazon Siddayao.

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Warnings: Caution patients about activities requiring alertness (e.g., operating vehicles or machinery). Warn patients of possible additive effects with alcohol and other CNS depressants.

Usage in Pregnancy: In pregnancy, nursing mothers and women who might bear children, weigh potential benefits against hazards. Inhibition of lactation may occur.

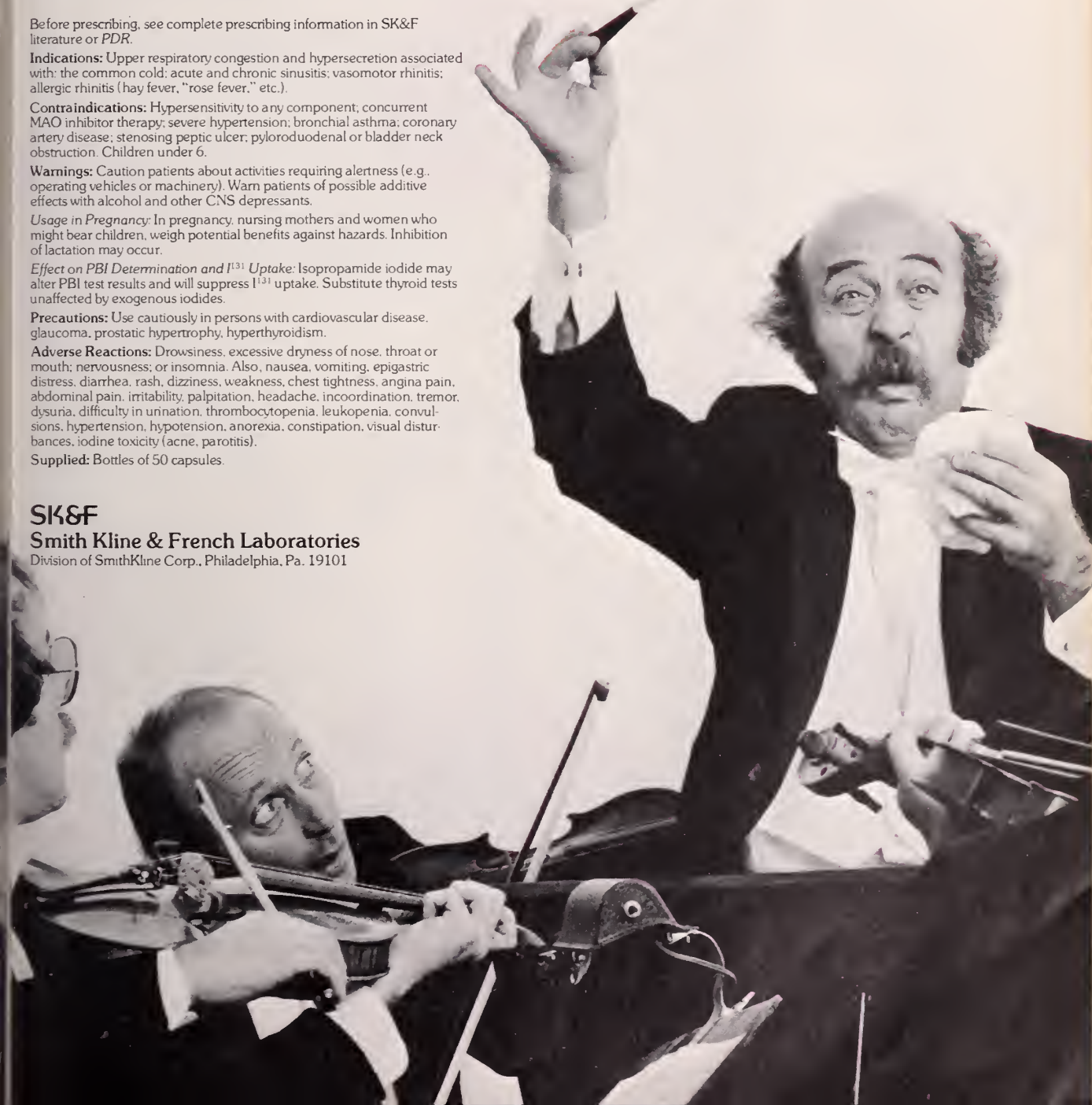
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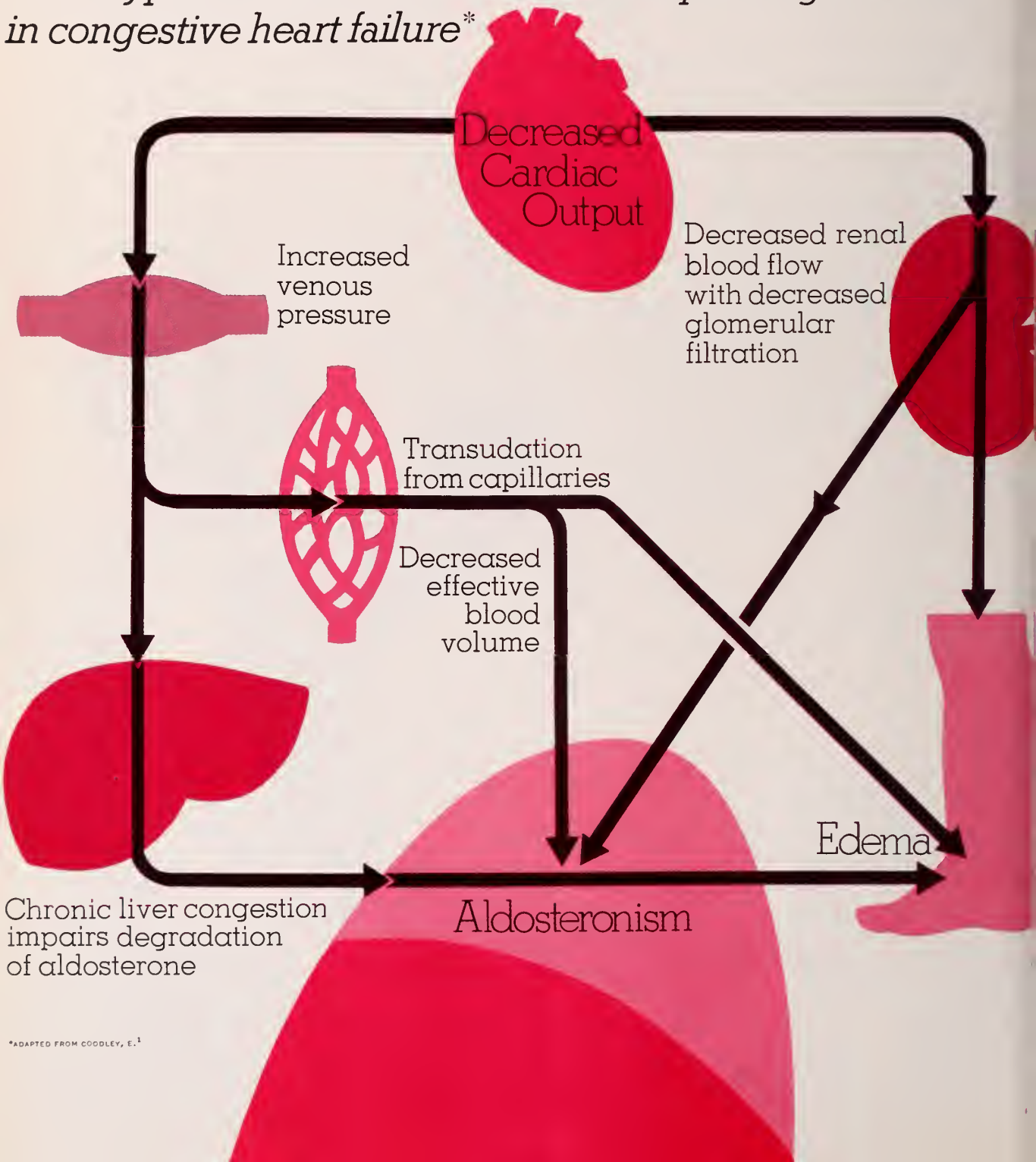
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Indications—Essential hypertension; edema or ascites of congestive heart failure, cirrhosis of the liver and the nephrotic syndrome; idiopathic edema. Some patients with malignant effusions may benefit from Aldactone (spironolactone), particularly when given with a thiazide diuretic.

Contraindications—Acute renal insufficiency, rapidly progressing impairment of renal function, anuria and hyperkalemia.

Warnings—Potassium supplementation may cause hyperkalemia and is not indicated unless a glucocorticoid is also given. Discontinue potassium supplementation if hyperkalemia develops. **Usage of any drug in women of childbearing age requires that the potential benefits of the drug be weighed against its possible hazards to the mother and fetus.**

Precautions—Patients should be checked carefully since electrolyte imbalance may occur. Although usually insignificant, hyperkalemia may be serious when renal impairment exists; deaths have occurred. Hyponatremia, manifested by dryness of the mouth, thirst, lethargy and drowsiness, together with a low serum sodium may be caused or aggravated, especially when Aldactone is combined with other diuretics. Elevation of BUN may occur, especially when pretreatment hyperazotemia exists. Mild acidosis may occur. Reduce the dosage of other antihypertensive drugs, particularly the ganglionic blocking agents, by at least 50 percent when adding Aldactone since it may potentiate their action.

Adverse Reactions—Drowsiness, lethargy, headache, diarrhea and other gastrointestinal symptoms, maculopapular or erythematous cutaneous eruptions, urticaria, mental confusion, drug fever, ataxia, gynecomastia, inability to achieve or maintain erection, mild androgenic effects, including hirsutism, irregular menses and deepening voice. Adverse reactions are infrequent and usually reversible.

Dosage and Administration—For **essential hypertension in adults** the daily dosage is 50 to 100 mg. in divided doses. Aldactone may be combined with a thiazide diuretic if necessary. Continue treatment for two weeks or longer since an adequate response may not occur sooner. Adjust subsequent dosage according to response of patient.

For **edema, ascites or effusions in adults** initial daily dosage is 100 mg. in divided doses. Continue medication for at least five days to determine diuretic response; add a thiazide or organic mercurial if adequate diuretic response has not occurred. Aldactone dosage should not be changed when other therapy is added. A daily dosage of Aldactone considerably greater than 75 mg. may be given if necessary.

A glucocorticoid, such as 15 to 20 mg. of prednisone daily, may be desirable for patients with extremely resistant edema which does not respond adequately to Aldactone and a conventional diuretic. Observe the usual precautions applicable to glucocorticoid therapy; supplemental potassium will usually be necessary. Such patients frequently have an associated hyponatremia—restriction of fluid intake to 1 liter per day or administration of mannitol or urea may be necessary (these measures are contraindicated in patients with uremia or severely impaired renal function). Mannitol is contraindicated in patients with congestive heart failure, and urea is contraindicated with a history or signs of hepatic coma unless the patient is receiving antibiotics orally to "sterilize" the gastrointestinal tract.

Glucocorticoids should probably be given first to patients with nephrosis since Aldactone, although useful for diuresis, will not directly affect the basic pathologic process.

For **children** the daily dosage should provide 1.5 mg. of Aldactone per pound of body weight.

References: 1. Coodley, E.: Consultant 12:106-107, 109, 111, 113, 115 (July) 1972. 2. Thorn, G. W., and Lauler, D. P.: Am. J. Med. 53:673-684 (Nov.) 1972.

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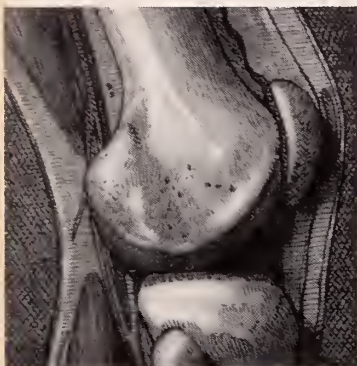
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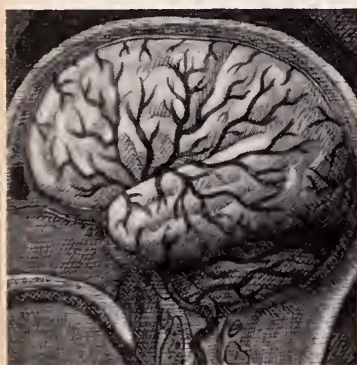
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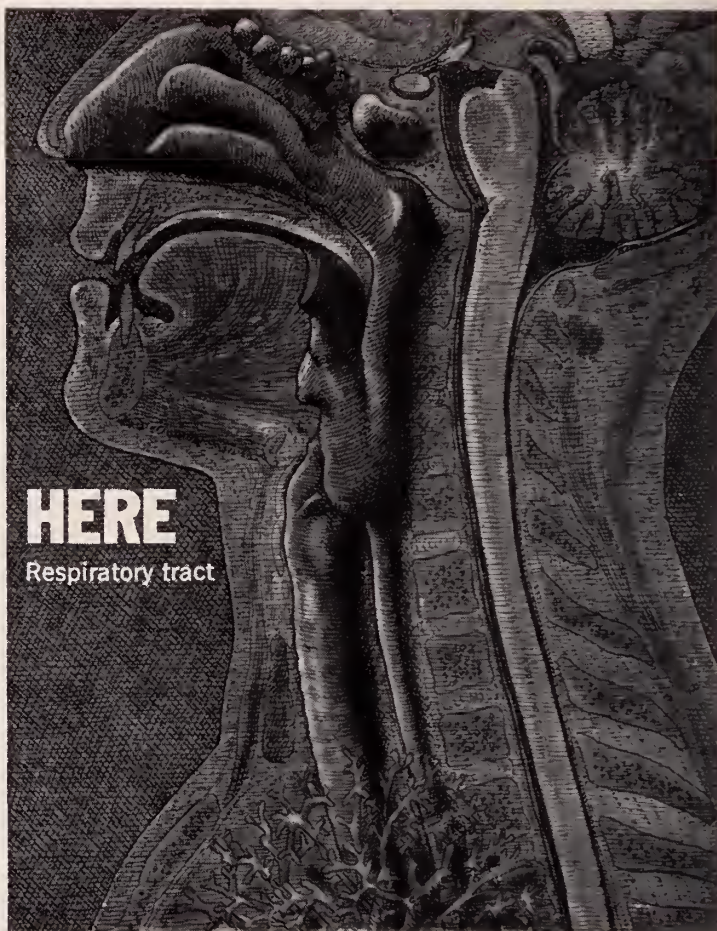


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ORIGINAL ARTICLES

Careful radiography can be of substantial assistance to the surgeon after gynecologic surgery

Radiologic Diagnosis of Urinary Tract Injuries Following Gynecologic Surgery*

Albert J. Salzman, M.D./Atlantic City

Surgical injuries to the urinary tract may result in ureteral obstruction or formation of a fistula between the urinary tract and vagina. While complete ligation and complete transection are the most common types of ureteral injury,¹ many may result from ischemic necrosis, especially following radical pelvic surgery.^{2,3} Ischemic necrosis may result in ureteral obstruction if followed by fibrosis, or in ureterovaginal fistula if the ureteral wall becomes disrupted.

Vesicovaginal fistula may result from direct injury, from passing a suture through bladder and vaginal walls or, again, from ischemic necrosis.⁶ Fistulas between the bladder and vagina are about eight to ten times as common as ureterovaginal fistulas.^{4,5} Surgical injury during gynecologic surgery has become the most frequent cause of urinary-vaginal fistulas.^{6,7} The over-all incidence of urinary tract injuries following gynecologic surgery for benign conditions has previously been reported^{8,9} as between 0.05 and 2.4 per cent. This may increase to 9 to 13 per cent^{2,3} following radical surgery for malignant disease, due to greater disruption of blood supply to the distal ureters and bladder. Antecedent radiation therapy and infection may result in a higher incidence of complications.

The clinical records and available radiographs of fourteen patients sustaining urinary



Figure 1-A

tract injuries at Atlantic City Hospital from 1967 to 1972 were reviewed. Radiologic evaluation of these patients consisted of the following studies: (1) Intravenous urograms; (2) Retrograde urograms; (3) Retrograde cystograms; and (4) Vaginograms.

*Read before the Sections on Obstetrics and Gynecology, Radiology, and Urology, 207th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 14, 1973. Doctor Salzman is Director of Radiology, Atlantic City Hospital, Atlantic City.

Intravenous urography is carried out with relatively high doses of contrast material—1 cc per kilogram of body weight—to improve opacification. Retrograde cystography employs a 30 to 35 per cent iodinated contrast agent introduced by gravity through a Foley catheter under fluoroscopic control. Vaginography uses a similar technique with the Foley catheter balloon in the vaginal introitus and the patient in 5 to 10 degree Trendelenburg position.

Table 1

Occurrence of Complications by Surgical Procedure	Ureteral Ligation	Surgical Vesico-vaginal Fistula	Procedure Uretero-vaginal Fistula
Vaginal Hysterectomy	2	1	2
Abdominal Hysterectomy	2	2	
Radical Hysterectomy	1	1	1
Totals	5	4	3

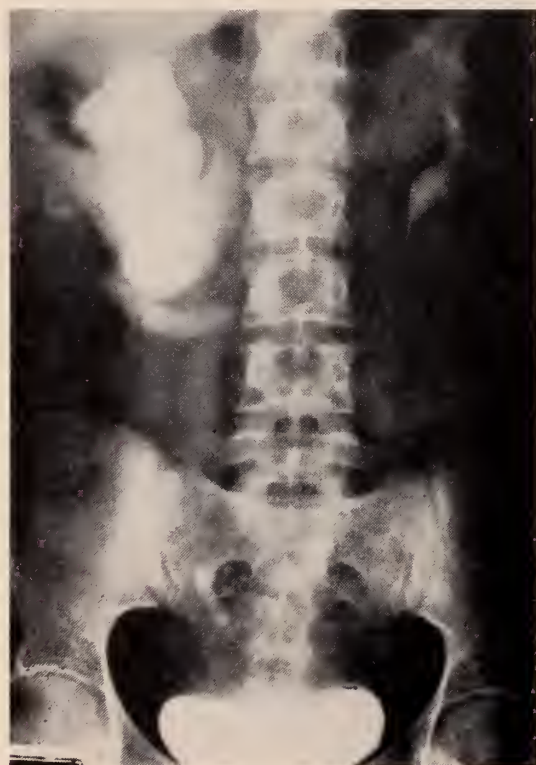


Figure 1-B

Right Ureteral Obstruction—1-A—30 minute and 1-B—90 minute films from a postoperative intravenous urogram demonstrating delayed function and dilatation of right ureter. The point of obstruction is well demonstrated on the delayed film just caudal to the right sacroiliac joint.



Figure 2-A

Results

Two of the fourteen patients had incisions into the urinary bladder at surgery which were repaired immediately and had no further problems. Of the remaining twelve patients, there were five ureteral obstructions and three ureterovaginal fistulas. Five of the complications occurred following vaginal hysterectomy, four after abdominal hysterectomy for benign disease, and three following radical hysterectomy for cancer of the cervix.

The following schema can be derived on the basis of the radiographic changes observed in these patients:

(A) Ureteral ligation (Figure 1)—Intravenous urogram:

- (1) Delayed and/or diminished opacification on the involved side.
- (2) Dilatation of the involved ureter.
- (3) The point of obstruction may be identified on delayed films.

Retrograde pyelography may be helpful with complete loss of function (unusual).

Retrograde cystography and vaginography are not indicated.

(B) Vesicovaginal fistula (Figure 2)—Intravenous urogram:

- (1) Upper urinary tracts usually normal.
- (2) May identify contrast material in vagina.

Retrograde pyelography usually not indicated

Retrograde cystography is most helpful in identifying fistula.

Vaginography may be helpful in ruling out an associated ureterovaginal fistula.

(C) Ureterovaginal fistula (Figure 3)—Intravenous urogram:

- (1) May have delayed and/or diminished appearance of contrast material with dilatation of the involved ureter.
- (2) Extraureteral collections of contrast material may be seen adjacent to the distal ureter.
- (3) Contrast material may be identified in the vagina. This is especially helpful if seen before the urinary bladder opacifies.

Retrograde pyelography is usually not indicated unless there is complete loss of function.

Retrograde cystography may be helpful for ruling out a vesicovaginal communication.

Vaginography may be most helpful in localizing the site of communication between ureter and vagina.



Figure 2-B



Figure 2-C

Vesicovaginal Fistula—Postoperative urogram (2-A) appears normal. A-P (2-B) and lateral (2-C) films from a retrograde cystogram demonstrate contrast material entering the vagina through a fistula from the posterior bladder wall.



Figure 3-A

While the immediate recognition and repair of urinary tract injuries at the time of surgery is optimal, many of these complications are not appreciated until the postoperative period. It has been pointed out⁹ that ureteral injuries may not produce symptoms and may go unrecognized for many years. Where a fistula results from ischemic necrosis of the ureter or bladder, the fistula may not manifest itself until the second or third postoperative week.³

The type of fistula may be suspected on the basis of the patient's symptoms,⁴ but more precise localization is necessary prior to attempted correction. Intravenous injection of excretable dyes and introduction of dye into the bladder may provide additional information,² along with cystoscopy. The radiologist, however, is often called upon to aid in localization of urinary tract injuries, and must be prepared to use any techniques available to him. The intravenous urogram, with high dosage of contrast material, is usually the initial procedure, and may reveal useful signs of injury to the urinary tract. Ureteral dilatation



Figure 3-B

Ureterovaginal Fistula—Postoperative intravenous urogram (3-A) demonstrates a large collection of contrast material in the right side of the pelvis, outside the ureter. There is mild dilatation of the right ureter. Figure 3-B is a retrograde vaginogram on another patient demonstrating a fistula from the vaginal vault to the distal right ureter.

alone must be interpreted with some caution during the immediate postoperative period, since this may be seen up to three weeks postoperatively without permanent ureteral injury, especially after radical hysterectomy.^{2,3} Cystography is usually diagnostic in patients with vesicovaginal fistula and is helpful, in a negative sense, with ureterovaginal fistulas. None of the previous American literature mentions vaginography in evaluating urinary-vaginal fistulas. This relatively simple procedure, however, may be most important in localizing ureterovaginal fistulas, especially in the absence of upper tract abnormalities.

Any discussion of the role of the radiologist here would be incomplete without stressing the usefulness of preoperative intravenous

urography. As many as 2 per cent of patients may show nonfunction of a kidney preoperatively,¹ and almost 20 per cent will show some degree of ureteral dilatation of one or both sides prior to surgery.⁸ Without this information, misinterpretation of studies obtained during the postoperative period may result. In addition, the preoperative urogram may indicate the presence of an ectopic kidney and alert the operating surgeon to the presence of a pelvic position of one kidney.

Summary and Conclusions

Injuries to the urinary tract following gynecologic surgery may produce ureteral obstruction or urinary-vaginal fistulas. Radiologic evaluation of these complications will consist of one or a combination of procedures such as intravenous urography, retrograde pyelography, retrograde cystography, and vaginography. On the basis of the radiographic findings in twelve patients from Atlantic City Hospital seen over the past five years, a schema has been established for the radiologic diagnosis of urinary tract injuries resulting from gynecologic surgery. The value of the preoperative urogram is pointed out.

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1925 Pacific Avenue

Thirty-one patients with facial pain were treated with injections of boiling water into the gasserian ganglion in controlled increments. The procedure is relatively simple and safe. Dr. Winkler here describes the process.

Gasserian Ganglion Injection for Trigeminal Neuralgia*

M. Bernard Winkler, M.D./Paterson

Since the work of Spiller and Frazier¹ in 1910, it has been known that permanent relief of trigeminal neuralgia is accomplished only with interruption of retrogasserian fibers. Many neurosurgeons have become quite proficient in performing retrogasserian neurectomy, but the operation still has major drawbacks. These include: (1) patients, often elderly or debilitated, must undergo a major craniotomy with its attendant risks, (2) there is a significant incidence of postoperative facial palsy, (3) the first division is often involved, with corneal and ocular problems. (4) patients are left with annoying anesthesia, and (5) a small percentage of patients develop postoperative paraesthesias, sometimes almost as distressing as the original neuralgia.

Other surgical procedures have been designed to overcome some of the problems, but without conspicuous success. Decompression of the ganglion will ordinarily spare sensation, but has a high rate of recurrence of pain. Root section through a posterior fossa approach offers opportunities in differential section, but is not the answer to all of the problems. Trigeminal tractotomy has given a very high incidence of paraesthesias.

Injection of the ganglion with alcohol is an old procedure which is relatively simple. It has not remained in general favor because it is a blind procedure and the alcohol causes irreversible changes. Jaeger² first developed

the use of boiling water as a controlled procedure with additional safety because of reversibility when done with small increments. The procedure here described modifies Jaeger's³ procedure slightly, particularly making use of narcoleptic anesthesia, using Innovar[®] in order to observe neurological changes during the procedure.

Clinical Material

Forty-two patients (18 males and 24 females) were included in this study. Almost all had been treated with carbamazepine in doses up to 1600 mgm. daily and all had return of pain in spite of medication. In three cases, the first division of the trigeminal nerve was involved, while thirteen patients had second division and twenty had third division neuralgia. A single patient had first and second division pain, but five had involvement of the second and third branches. Sixty per cent of the patients were first treated with surgical avulsion of the infra-orbital or inferior mandibular nerve, usually with temporary relief. It is the author's opinion that an initial peripheral procedure is advisable, even if it is only temporary, for several reasons. The procedure accustoms the patient to the facial numbness before it is permanent and is valuable in confirming the diagnosis before a more defini-

*Read before the Section on Neurology and Neurosurgery, 207th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 13, 1973. Dr. Winkler is Assistant Clinical Professor of Neurosurgery, Mt. Sinai Medical School, New York, and Director of Neurosurgery, St. Joseph's Hospital, Paterson.

tive procedure is done. Furthermore, the incidence of paraesthesias seems to be lower when preceded by a peripheral procedure. The nature of the procedure is carefully explained to the patients, including the possible need for multiple procedures and possibility of corneal anesthesia.

Technique

Innovar® by the intramuscular and intravenous route, is utilized for the procedure, under the control of an anesthetist. The patient is positioned on an x-ray table in the supine position with an inflatable pillow underneath the shoulders. Scout x-ray films are taken in the submental-occipital and cross-table lateral views. A felt-tipped pen is used to draw the markings on the face (Figures 1 and 2). The point of injection is in line with the mouth and just beneath the external canthus. A line is drawn from this point (A) toward the lower lid in line with the pupil (B). Another line is drawn from the external canthus to the external auditory meatus. A point one inch in front of the meatus is

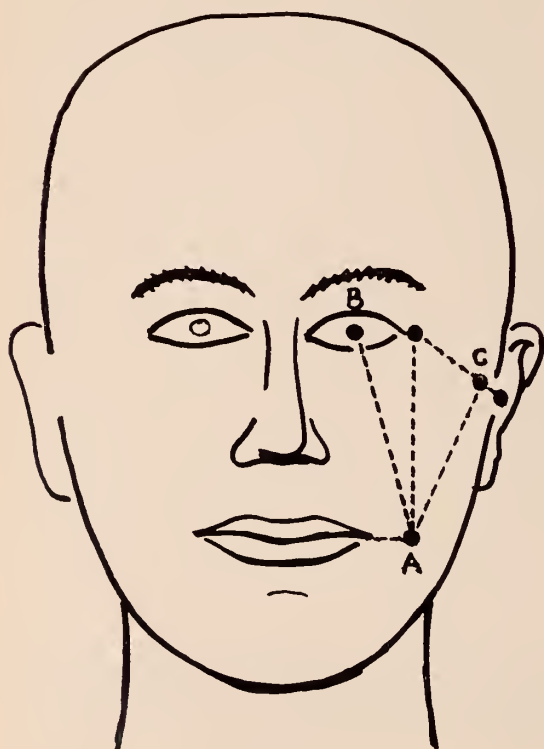


Figure 1

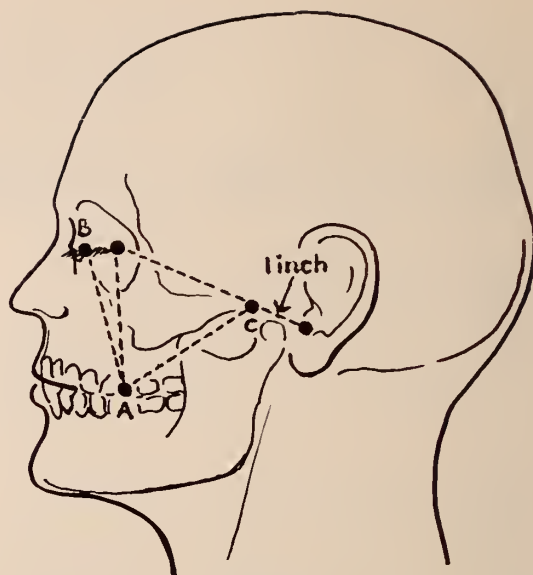


Figure 2

marked (C). This latter point is then connected to the point of injection. A small area is painted with antiseptic taking care to leave the guidelines largely intact. A few drops of local anesthetic are injected at the site into the skin. A number 19, three and a half inch spinal needle is now introduced and passed along the intersection of two planes—the vertical plane passing through AB and the horizontal plane passing through AC (Figure 3). This will lead directly to the foramen ovale. Reference to a skull while doing the

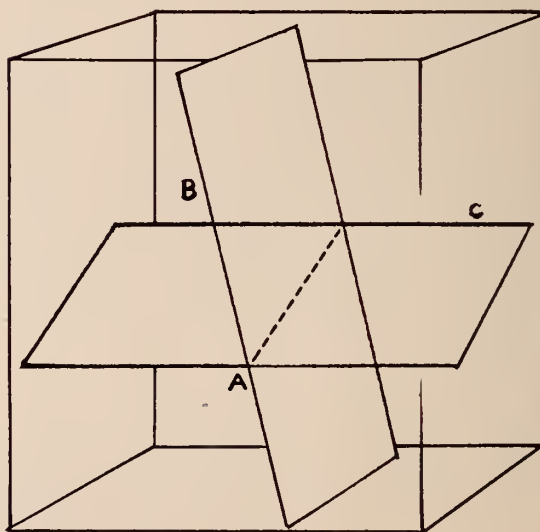


Figure 3

procedure is often very helpful. I find it advisable to direct the needle somewhat laterally to the planned course at first to keep it out of the oral cavity, then to redirect it toward the foramen. If difficulty is encountered in finding the foramen, x-rays may be of help. It is usually possible to place the needle directly and then use the x-rays to gauge the depth of penetration of the needle. Cerebrospinal fluid will usually be obtained when the stylet is withdrawn. Ordinarily, when the needle has just passed into the cranial cavity it will encounter the fibers of the third division immediately. The fibers of the second and first division are encountered after the needle is advanced only a few millimeters. I visualize a line on the lateral skull x-ray passing through the floor of the sella turcica and parallel to the base line of the skull, and I do not like to allow the point of the needle to pass this line.

When the needle has been inserted to the appropriate depth, 0.5 c.c. of boiling water is rapidly injected with a preheated tuberculin syringe. Care must be taken not to change the needle position while connecting the syringe. The patient is tested for sensory loss over the face, for corneal reflex, and for movement of the jaw and eye. The position of the needle is adjusted, depending on the sensory changes, and further doses of boiling water are injected until the desired anesthesia is achieved. We have used a maximum of 2.5 c.c. of boiling water at any one sitting. There will be partial return of function by the next day so it is advisable to obtain a dense anesthesia over the desired division. Partial loss of corneal reflex will usually recover within 24 hours, but complete loss is more likely to be permanent.

Most patients are discharged from the hospital the following morning, but another session is planned 48 hours later, if the pain has been particularly severe or is not relieved. Occasional patients who have good sensory results with residual pain are observed at home, as the pain will often disappear without further procedure.

Results

Thirty-one patients have been treated by injection of boiling water and twenty-seven (87 per cent) were relieved of their pain. Two patients had paraesthesias; one patient had an occasional dull pain and one patient has been essentially unrelieved of the pain. It may be significant that this patient had an atypical history, with constant pain between shock-like episodes.

Complications

One patient developed a clinical picture of bacterial meningitis with pleocytosis, temperature elevation, and nuchal rigidity but no organism was isolated. Ampicillin was administered and the patient made a quick recovery. I suspect that the infection was caused by the needle passing through the oral cavity. Another patient developed an aseptic meningitis, which responded to parenteral steroids. Six patients had partial loss of corneal sensation which was transient, but two others had complete loss of corneal sensation and required treatment with artificial tears and ophthalmic ointment. Not unexpectedly, there have been no cases of facial weakness or oculomotor paresis in this series, although the author had seen this complication in one boiling water are injected. The procedure is eight weeks.

Summary

Thirty-one patients with facial pain were treated with injections of boiling water into the gasserian ganglion in controlled increments. This procedure is particularly well suited to narcoleptic anesthesia as the effect can be evaluated while small amounts of boiling water are injected. The procedure is relatively simple and safe.

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WRITE FOR LITERATURE AND SAMPLES

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This appears to be the first case of a lipoma involving the ovary ever reported.

Ovarian Liposarcoma

A Case Report

**Earl Greenwald, M.D.,
Caterina A. Gregori, M.D., and
James L. Breen, M.D./Livingston***

Lipomata, in either single or multiple foci throughout the body, are relatively common. They have been described as occurring in many lipid areas, most frequently, however, within the subcutaneous tissues. Lipomata have also been described in the retroperitoneal spaces, peritoneal cavity, mesentery, mediastinum, and intestinal wall. A thorough search of the literature fails to reveal a single reported case of a lipoma or liposarcoma involving the ovary.

The following is a summary of a patient with a histologically documented liposarcoma of the ovary.

The patient was an 84-year old Gravida II, Para I, Ab I female who was seen for evaluation of an abdominal mass arising from the pelvis. This mass was noted by her physician on a routine annual physical examination. The only symptom, referable to the mass, was a sensation of pelvic pressure. The patient had been menopausal for thirty years, and had experienced no postmenopausal bleeding. She had an appendectomy when 15, a cholecystectomy at the age of 74, and a radical mastectomy at the age of 76 for carcinoma of the breast. She was a well developed, well nourished female in no acute distress. Pertinent findings on examination included the following: the right breast was noted to be surgically absent, no masses were palpated in the left breast and no axillary adenopathy could be felt bilaterally. On examination of the abdomen, an incisional hernia within a right subcostal incision was noted. The liver could not be palpated. A semisolid, mobile, nontender mass was palpated, which filled the entire left lower abdomen, below the umbilicus, arising from the pelvis. The cervix was firm and closed. The uterus was small, firm, anterior and displaced to the right. A thirty centimeter smooth mass could be felt filling the pelvis posterior to the uterus and rising into the abdominal cavity. On examination of the extremities, a fifteen centimeter lipoma was noted on the medial aspect of the upper one-third of the left thigh.

Hematocrit was 42.9 per cent, hemoglobin was 13.5 gram per cent, white blood count was 8,400 per cubic mm., with 61 per cent polymorphonuclear leukocytes, 2 stabs, 30 lymphocytes, 5 monocytes, and 2 eosinophils. Platelet count was 204,000 per cubic mm. Urinalysis, prothrombin time, partial thromboplastin time, bleeding time, and serum protein electrophoresis were within normal limits. Immunoelectrophoresis revealed decreased albumin, IgA, and IgM. Serum sodium was 134 milliequivalents per liter, potassium 3.8 milliequivalents per liter, chloride 99 milliequivalents per liter, and bicarbonate 26 milliequivalents per liter. Serum copper was 150 micrograms per cent.

Examination for circulating tumor cells revealed Class II atypia without evidence of malignancy. Serum glucose -6-phosphate dehydrogenase was 5.5 international units per gram of hemoglobin. SGOT was 45 milliunits per milliliter, lactic dehydrogenase 175 milliunits per milliliter, alkaline phosphatase 65 milliunits per milliliter, total bilirubin 0.4 mg. per cent, total protein 7 gm. per cent, albumin 4.1 gm. per cent, cholesterol 250 mg. per cent, uric acid 6 mg. per cent, BUN 20 mg. per cent, serum glucose 95 mg. per cent, serum calcium 9.5 mg. per cent, and inorganic phosphate 4.5 mg. per cent. Alkaline phosphatase isoenzyme determination revealed total activity of 6.353 King Armstrong units, with liver-like fraction of 5.666 and bone-like fraction of 0.687 King Armstrong units. There was no detectable intestine-like fraction or heat stable alkaline phosphatase.

Intravenous pyelogram was negative and the skeletal survey revealed degenerative osteoarthritis of the lumbar and thoracic spine and right hip. Radio-isotope abdominal lymph node scan demonstrated no uptake in the peripelvic or periaortic lymph node regions, representing the possibility of inflammatory or metastatic replacement of these lymphatic regions. Radio-isotope renogram showed an abnormal excretory phase of both kidneys with prolonged excretion illustrated up to thirty minutes. Chest x-ray revealed marked elevation of both hemidiaphragms due to the intra-abdominal pathology and a hiatal hernia. Liver scan, electrocardiogram, and impedance phlebogram were within normal limits.

Exploratory laparotomy revealed a 30 by 30 by 10 centimeter, smooth, semicystic, semisolid, grayish-yellow tumor mass. Multiple adhesions of surrounding small and large bowel were lysed from the surface of the tumor mass. This tumor mass was suspended from the uterus by the utero-ovarian ligament and from the left pelvic side wall by the infundibulo-

*Dr. Greenwald is Oncology Fellow, Dr. Gregori is Assistant Director, and Dr. Breen is Director, Department of Obstetrics and Gynecology, Saint Barnabas Medical Center, Livingston, New Jersey



Figure 1—A 3,350 gram semicystic, semisolid, gray, well encapsulated mass which occupied the anatomical position of the left ovary.



Figure 2—A hematoxylin and eosin stained microscopic section (300 X) demonstrating multiple fat vacuoles and a single neoplastic cell, multinucleated and with hyperchromatism and multiple protoplasmic projections.

pelvic ligament. A lipoma was also noted within the wall of the sigmoid colon, and in the left extraperitoneal space. Exploration of the liver, kidneys, spleen, and periaortic and pelvic lymph nodes failed to reveal evidence of more extensive disease. The lipomata were dissected from the extraperitoneal space and the sigmoid colon. The left infundibulo-pelvic and utero-ovarian ligaments were clamped, cut, and suture ligated, and the massive tumor occupying the position of the left ovary removed from the pelvic region. The right infundibulo-pelvic and utero-ovarian ligaments were similarly clamped, cut, and suture ligated, and the right ovary removed. Because of the patient's age and a negative dilatation and curettage, the uterus was left in situ. The abdomen was then closed in a routine manner with retention sutures. The postoperative course was totally uneventful, and the patient was discharged on the ninth postoperative day.

Examination of the ovarian tumor revealed the following: the mass weighed 3,350 grams (Figure 1). The outer surface demonstrated a well-defined, thin, semitransparent capsule averaging 0.1 centimeter in thickness. On section, the tumor demonstrated a homogeneous, glistening semitranslucent wall resembling "fish-flesh." Scattered areas of cystic and mucinous degeneration as well as foci of old hemorrhage were noted. On microscopic examination, a moderately cellular liposarcoma composed of pleomorphic neoplastic cells, and scattered hyperchromatic multinucleated giant cells with stellate outlines and protoplasmic projections could be seen (Figure 2). Mitotic figures were relatively uncommon. Scattered areas of myxomatous degeneration could be identified. Oil red special stain revealed the presence of fat vacuoles. No ovarian tissue could be microscopically demonstrated. Final diagnosis was a liposarcoma, well differentiated and of low-grade. The follow-up of this patient, since surgery, for a period of one year, has been unremarkable.

Ovarian sarcomas have been described, including fibrosarcomas, rhabdomyosarcomas,

leiomyosarcomas and lymphomas.¹ It is conceivable that the ovarian stroma, which is mesenchymal in origin, might have the capability of differentiation into adipose tissue, which might subsequently undergo a malignant change.

A more likely explanation, however, is malignant change within the adipose component of an adult cystic teratoma. Multiple neoplasms have been noted to occur in the other tissue components of teratomatous neoplasms.²

Malignant changes in the adipose tissue occasionally noted on the microscopic examination of the normal meso-ovarium may also act as a source of this type of malignancy.

We have presented what we feel is an ovarian liposarcoma occurring in a patient with generalized lipomatosis. A search of the literature had failed to reveal the report of such an entity.

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Early Warning System for Epileptics

Epileptics can be alerted to an impending seizure by a pocket device developed under a grant from the Department of Health, Education, and Welfare. Weighing less than a pound, the device is contained in a case that slips easily into a shirt pocket.

The patient is warned of an imminent seizure by a buzzer and a flashing light, allowing time for medication or other protective action. The system consists of two silver electrodes—about half the size of a dime—affixed to the side of the head and attached by wires to the case.

Inside the case are two batteries, the warning devices, and the system's electronics.

The warning system, not yet on the market, uses telemetry to distinguish between an epileptic's normal and pre-seizure brain waves. Thus, it must be adjusted to the individual.

The research was supported by a grant as a cooperative project of the McDonnell Douglas Astronautics Company, the Veterans Administration, and the Medical School of the University of California at Los Angeles.

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Indications: Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

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2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.
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Final classification of the less-than-effective indications requires further investigation.

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The young adult is crucially involved in many of the crisis areas afflicting society. Professor Perr here reviews some of the maladaptation patterns associated with young adulthood.

Psychiatric Peculiarities of the Young Adult*

Irwin N. Perr, M.D., J.D./Piscataway

Never in American history has attention been focused so intensely on the young adult and his behavior. There has been an evolutionary alteration of young adult behavior in a way that has drastically affected the matrix and functioning, not only of our American society, but also that of the Western World itself. Each observer, whatever his professional or technical role, must be aware of the determinants of the resultant behavioral complex, not only to understand the nature of the changing social patterns but also perhaps to augment his ability to handle some of the specific problems which arise as individual deviations or as social movements which demand a response from the community.

Comparable to societal suppression of sexual knowledge and functioning seventy years ago, the relative avoidance (until recently) of the exploration of the world of the young adult is striking. The preordained patterning and structuring of the past have slowly evaporated as adults, young and otherwise, have questioned traditional value systems. As the assigned roles of various "minority" groups have been exposed and scrutinized, an awareness of yet another minority group with an uncertain place in society—the young adult, has been slowly evolving. Some legal recognition has been given to this group in terms of civil rights; the right to vote, drink, marry, contract, and so on has now been increasingly granted to this group which has the unusual characteristic of some degree of legal liberation combined usually with some

economic dependency and emotional prematurity. While abnormal patterns have been studied, only recently has there been extensive interest in the normal young adult population with changing concepts of what constitutes normality and abnormality.¹

Young adulthood is a universal experience through which we all pass. But it is a unique one with characteristics of prime import not only in understanding the individual and group behavior of the young adult but also that of his successor, the mature adult. Those who do not make the transition may, to that degree, reflect the adaptive patterns of this earlier age period which may be inappropriate to mature adult tasks and functioning.

Despite its difficulties, young adulthood, to paraphrase Erickson,² is not an affliction but is a "normative crisis"—a normal phase of increased conflict, fluctuating inner resources, and a high potential for development. As much as psychiatric theoreticians sometimes have difficulty separating the normal and the abnormal, this attempted distinction in defining the limits of pathology and normative development is more problematic in the young adult.

The question of behavioral maladaptation of the young adult is crucial. This is reflected in many of the major problems confronting our society. Consider the following list of crisis

*Presented at the Ninth International Medical-Legal Seminar, University of Amsterdam Medical School, Amsterdam, Holland, May 31, 1973. Dr. Perr is Professor of Psychiatry and Legal Medicine, CMDNJ, Rutgers Medical School.

areas, keeping in mind the particular involvement of the young adult:

1. Violence and crime
2. War
3. Drugs and chemical abuse
4. Race conflict
5. Sexual liberation
6. Economic problems including welfare and aid to the dependent and economically non-viable
7. Rejection of traditional authority patterns
8. Ecological crises and pollution
9. Governance

Governance, though perhaps somewhat peripheral, is a prime problem confronting society. Governance refers to the organizational capacity, authority, and means which are directed toward the handling of a function. When a functional system lacks the capacity, authority, or the means, then the system itself breaks down—an unfortunately familiar occurrence and one crucial both to the mature adults and the young adults in our society.

The traditional role of the psychiatrist has been the definition and treatment of the mentally ill and the emotionally disturbed, a role still appropriate to certain aspects of the problem of the young adult. Other roles of the psychiatrist deal with the understanding of human behavior (both individual and group), a goal increasingly evolving into the broader problem of prevention of emotional disease or malfunction. Many other disciplines, of course, are also professionally concerned with the behaviorally aberrant. This focus on a broad area of maladaptation (rather than on a narrow dimension of "illness" alone) has been reflected in psychiatry with the development of such sub-specialties as social psychiatry, community psychiatry, and transcultural psychiatry. Thus instead of being faced by an individual patient with a discomforting symptom, the psychiatrist is confronted by complaints from society at large, governmental institutions, schools, agencies, parents, and family about the behavior of other individuals or groups. If the unacceptable behavior pattern is one proscribed by law, it is labeled a "crime." If the behavior is reflected either in "crime" or other activity subject to litigation or legal review

(personal injury, accidents, unnatural death, suicide, and so on) then it falls within the domain of a wide variety of social functionaries—forensic scientists, judges, courts, and lawyers, insurance companies, coroners, and the like.

Psychiatric peculiarities of the young adult generally reflect quantitative differences rather than qualitative ones. Based on the traditional categorizations of mental illness or emotional disorder, the young adult is not unique. He is subject to the vast array of what we designate as psychiatric problems except, of course, senility and involutional disorders. On the other hand, there are striking differences in incidence and prevalence, particularly in the behavior disorders like sociopathic or antisocial behavior, sexual aberrations, drug dependence, psychosis, or behavior change due to drug intoxication. All of these may involve the law, social mores, and value judgments. They may then be expressed as legal problems such as harm to person, drunken driving, possession of drugs, rape, or in social problems such as violence, the drug scene, negative aspects of communal living, unwanted pregnancy, and car accidents. Such reactions as withdrawal patterns, unsocialized aggressive reactions, and group delinquent reactions are prominent as a carry-over from a multiplicity of childhood and early adolescent behavior modes and are not so prominent in mature adults. Another unique characteristic of the young adult is the fluidity of the personality structure. This renders evaluation and prognosis in this age group different from that of the older person who presents the same clinical picture. This difference in treatment and prognosis in the face of a similar clinical picture, needs to be stressed. The prognosis in an older adult may be much worse than that of the young adult with a similar picture. In contrast, the less developed and poorly modulated emotional control system in the young adult is reflected in greater likelihood of problems involving violence, aggression, and behavior designated as criminal.

Despite the obvious importance of cultural

influences, the spectrum of etiologic factors in violence and aggression² must be kept in mind in the evaluation of young adults. These are: (1) Constitutional-genetic, (2) Organic-biologic, (3) Psychodynamic, and (4) Environmental-cultural and learned patterning.

Maldevelopment in any of these areas may result in deviant functional symptoms—for example, the role of brain damage in violent behavior has been investigated by Mark and Ervin.³ Another example of the organic-biologic determinant is the effect on the sexual evolution of the young adult from the reaction to the rapid body changes and the hormonal storm associated with this and earlier age periods.

Erickson^{4, 5} has contributed richly to our understanding of the psychodynamic evolution of the young adult. This universal developmental pattern can be placed in the context of the specific environmental-cultural complex and can then provide some basis for understanding individual and group behavior patterns as well as maladaptational variances. Rosen⁷ (Cleveland State Hospital) has elaborated on this schemata described below.

In the early school period, there is a development of the self in terms of skill identity and sex identity. At this point object relationships are directed toward peer groups and adults of the same sex. With limited coping abilities, feelings of inferiority are prevalent at this time. A common disease or maladaptation of this period of development is the school problem. In the preadolescent period, ethnic and communal identity develops as well as what might be called the normal homosexual period with strong identification with one's own sex and the commonly observed avoidance of the opposite sex. Strong competitive feelings are prevalent at this point in development. Here one commonly observes the extreme reactions of winners and losers in any type of game or contest, no matter how trivial. To help in adequate resolution of this period of development, assistance in learning is a normal need as is help in reaching some

level of achievement or accomplishment and in providing the opportunity to develop appropriate identifications and to establish community roots. How the individual fares in this period will determine whether he develops a sense of industry, accomplishment, and self-worth or a sense of inferiority, inadequacy, and weakness.

In the evolution of the ego and a sense of a comfortable and acceptable identity, further steps occur in adolescence and young adulthood. Between the ages of 16 to 21, there is a flowering of self-awareness, considerable resolution of the identity crises, and the formulation of a vocational identity. For many, cultural factors now impede development of the last with severe negative effects on one's self-image, and sense of independence, and self-assertion. During this period there is a shift in object relations as a result of a renewal of the Oedipus Complex (in psychoanalytic terms) with the individual's sexual interests and preoccupations being directed toward the opposite sex. These relationships are characterized by heterosexual variety and experimentation with eventual heterosexual stability. At the same time, one's successful identification with the same sex evolves into a marked attachment to idealized or hero figures. It is of great importance to society to have attention paid to the creation or recognition of adequate hero figures. Think of the devastation and disappointment we feel when a sports figure is convicted of assault, rape, or "throwing a game;" or when the idealized black, ethnic, or other politician is caught stealing or is involved in acts of moral turpitude. The feelings and thoughts of the adolescent and young adult are reflected in loyalty, secrecy, crushes, doubts, idealism, rebellion, loneliness, and a sense of meaninglessness. While these characteristics may be normal, the expression and elaboration in degree of some may then be maladaptive or pathologic. Those who do not successfully handle their identity evolution may then present the psychopathologic modes which derive from this period of development. These may be manifested by delinquencies or similar behavior which is crimi-

nal by societal standards, by marital problems, aberrant group cultures, identity crises, vocational drifting, and by a crisis of the meaning of existence. Our drug-use problem is often a result of, and not a cause of, an existential problem, though the organic-biologic effects of such drug use may then create a separate complex of problems. One frequently hears the expression, "alternative life styles," these days as a justification for a given pattern of living. The expression has become a semantic red flag to traditionalists. Those who indulge in alternative life styles are accused of egocentricity, lack of responsibility, parasitism, excessive dependence or excessive independence, immorality, and so on. It might be helpful to consider that "alternative life styles" may be of some utility to certain young adults in working out the problems of the ever-lengthening period of young adulthood and that the same alternative life styles may be more inappropriate in mature adulthood, which should mark the resolution or working through the problems alluded to. Who is more pitiful than an aging hippie?

The basic developmental needs of this period must be kept in mind so that society and family can assist in the healthy evolution of the individual in this regard.

Thus, consideration (and tolerance) must be given to the following (after Rosen):⁷

1. Freedom for disobedience
2. Some placing of limits
3. Permission to move out from the family unit
4. Experimentation in behavior
5. Granting of responsibility
6. Objective discussion
7. Establishment of reasonable standards
8. Permission to flounder and make mistakes

Erickson⁴ stresses that a successful resolution of this phase results in an integrated and adaptive identity structure. Defective resolution results in identity diffusion and role confusion. Where there has been previous doubt and confusion as to one's identity—sexual and otherwise—delinquent and overt psychotic episodes are not uncommon, though not of the same clinical significance as episodes in later years. Lack of resolution may mean failure,

but more often fortunately it means only delay.

The most common problem is the inability to develop a functional adult role—particularly an occupational identity in broad sense. To compensate, temporary over-identification may result, especially with the heroes of the crowd, of which these days the selection is quite varied. This over-identification is also reflected in the repetitive "falling in love" stage which often is not sexual. The need to use another is manifested in the interminable telephone conversations of young adults, the prolonged and persistent bull sessions, and the group gatherings that are so prevalent whether they be in the Vondelpark and the squares of Amsterdam, the Boston Commons, or other places where young people gather. Search for identity results in clannishness and in groupings based on skin color, clothes, religious and political preferences, drug selection, sporting activities, intellectual interests, and other measures of in- and out-groups. Friends and enemies are both stereotyped; faithfulness is demanded; and appeals to totalitarian doctrines readily accepted. Idealism and ideology are inflexibly joined. As Erickson⁶ continues, "The adolescent mind is essentially a mind of the moratorium, a psychosocial stage between childhood and adulthood, between the morality learned by the child and the ethics developed by the adult."

Another Erickson⁵ concept is the balance between intimacy and isolation. Inability to fuse one's identity with others and to commit oneself to concrete affiliations leads to isolation and keeping others at a distance. This can reinforce "prejudice" and negative attitudes toward groups of which one is not a member.

Thus the major accomplishments of young adulthood are the establishment of an occupational or adult role choice, commitment to physical intimacy including sexual involvement, handling of competition, and evolution of a psychosocial self-definition. Though the word "maturity" has become semantically

meaningless, it incorporates these concepts as well as those involving value judgments, the sense of responsibility, the capacity to share and be interdependent, and the ability to postpone gratification as Freud so strongly stressed. Failure of this evolution can result in deviant and maladaptive patterns which we may then label as psychiatric, behavior, or character disorders.

This psychodynamic evolution, whether adaptive or not, does not occur in isolation but in an environment and in a cultural setting that constantly impinge on the individual and influence some of the options possible in the resolution of each phase of development. The role of environment, culture, and learned patterning merits extensive exploration. For these purposes, consider the following areas of social and environmental change as to their potential effects on the development of the young adult in accord with the prior schemata:

1. Loosening and shrinkage of the family unit
2. Geographic dispersal of the family unit
3. Geographic mobility
4. Exposure to other cultures
5. Socioeconomic mobility
6. Obsolescence of orthodoxy
 - a. Educational
 - b. Religious
 - c. Governmental
 - d. Legal
7. Sexual liberation and pregnancy control
8. Minority liberation and self-realization
9. Lessening of survival pressures
10. Instant mass communication
11. Automation, occupational and knowledge obsolescence
12. Breakdown of traditional sub-group identities
13. The information explosion
14. The population explosion
15. Increased technologic complexity
16. The ecological threat to existence as we know it
17. For many, prolongation of the period of dependence

Traditional identities have been lost and will not be regained. The day of the frontiersman (who had the capacity to control his destiny) is increasingly a romantic memory enshrined in a grade B movie starring his later counterparts—the black and white James Bonds.

These massive social changes have affected the developmental course of the young adult, as well as having strained the adaptive capacities of the older generation. If resulting behavior patterns are considered to be pathologic, deviant, criminal, delinquent, or otherwise socially or legally unsatisfactory, then efforts must be directed toward social changes which will allow for the evolution of society in a shrinking, technologically-oriented world and yet allow for healthy accomplishment of the transition through young adulthood.

I have focused on the psychiatric peculiarities of the young adult and his emotional development, healthy and non-adaptive, with emphasis on the difficulties in arbitrarily separating normal from the abnormal and the psychopathologic and with recognition given to the impossibility in defining the period of young adulthood on the basis of a set number of chronological years. The period of young adulthood has its peculiar problems which are most often susceptible to a fair resolution and need to be recognized as such. Some of the contributing factors to the unique adaptive and maladaptive patterns have been delineated. Perhaps by such approaches, the study of deviant behavior and the development of a rational remedial system for altering or minimizing such patterns can be facilitated.

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Desquamative interstitial pneumonia may be a precancerous lesion as developed in this meticulously studied case.

Desquamative Interstitial Pneumonia

A Systemic Disease and Precancerous Lesion?

L. Fred Ayvazian, M.D., et al.
East Orange*

In 1965 Liebow, Steer, and Billingsley¹ called attention to a specific form of pulmonary disease since known as desquamative interstitial pneumonia (DIP). This was characterized by distinctive anatomic and roentgenographic patterns and by a usually favorable response to corticosteroid drugs. Separating this from the general syndromes of pulmonary fibroses and interstitial pneumonias, they described eighteen patients whose lung tissues histologically showed extensive intraalveolar filling with large granular pneumocytes and a monotonously littoral change in the lining cells of the alveoli. In four of their cases hoarseness and laryngitis were present.

In 1968 Ayvazian, *et al.*² reported a patient with DIP (the biopsy-diagnosis confirmed by Dr. Liebow) in whom not only hoarseness but epidermoid carcinoma of the right laryngeal cord was found.

Although four of Liebow's¹ original cases suffered from laryngitis, no instance of malignant change was reported prior to this case. This aroused speculation that the basic disease and the histologic alterations peculiar to DIP might in time prove to be precancerous.

The major histologic abnormalities of DIP involve the terminal bronchioles and the alveolar spaces. However, Gaensler, *et al.*,³ reporting the second significant group of cases

of DIP, indicated histologic changes pointing to a possible potential for oncogenesis.

The present communication is motivated by the development of lung cancer in the previously reported patient six years following the proof of DIP and the surgical excision of the laryngeal carcinoma. In this patient, hepatomegaly motivated liver biopsy. This then disclosed "minor" histologic alterations which now may possibly be linked with cellular findings from animal and human tissues studied under electron microscopy and revealing similarities between the alveolar lining-cells in DIP and those in malignant lung tumors.

Liebow¹ described the filling of distal air spaces with masses of large alveolar cells (rather than phagocytes) without destruction of alveolar structure. In addition to active epithelial proliferation and mitosis in these shedding large cuboidal granular pneumocytes, he reported focal mucosal metaplasia and intracellular inclusion bodies along the most distal air spaces. Review of his specimens, as well as others submitted to his laboratory, showed evidence disputing the notion that fat or iron were major components of these inclusions. At first mistaken for hemo-

*Dr. Ayvazian is Chief of the Pulmonary Disease Section, Veterans Administration Hospital, East Orange. He was formerly Medical Director at Will Rogers Hospital, Saranac Lake, New York, where this study was made. Coauthors are Dorothy E. Steward, M.D., Richard W. Blide, M.D., and C. David Merkel, M.D., Saranac Lake, New York.

siderin, these accumulations were shown to be iron-free.

Haddad,⁴ considering wide groups of idiopathic pulmonary fibroses and fibrosing alveolitis, found the atypical proliferative epithelial alveolar cells morphologically suggestive of lung-cancer cells, extending previous suspicions that pulmonary fibrosis might favor development of lung tumor. Conceding that all eight of their patients were cigarette smokers, they questioned whether the distal-airway epithelial atypia and the occurrence of cancer in three might not represent a significant association. Referring to the findings of Auerbach and associates,^{5,6} they correlated precancerous lesions of the respiratory tract with cigarette smoking in both humans and experimental animals.

Gaensler³ emphasized that the intraalveolar giant desquamative cells in DIP did not resemble the usual foreign-body or Langhans' cells, being distinctively cuboidal and similar to those lining terminal bronchi. Both he and Liebow stressed the finding of many inclusion bodies intranuclearly.

Patchefsky⁷ suggested immune-disease hypersensitivity as a possible etiologic mechanism. Little, since, has supported this concept. Electron microscopy, however, identified the intranuclear inclusions in DIP as characteristic of those in type II alveolar cells (granular pneumocytes, great alveolar cells). This study⁷ found a striking similarity between these type II cells (the cuboidal cells, as distinguished from the flat squamous type I cells) of the alveolar lining of DIP and of that in alveolar-cell bronchiolar carcinoma. The authors suggested that these inclusions in DIP resulted from a process of nuclear degeneration rather than from viral infection.

Nash and associates⁸ reported a human lung tumor with a light-microscopic appearance typical of alveolar-cell carcinoma, the granular pneumocytes remarkably similar to the type II lining alveolar cells. Working with needle-biopsy specimens, Coalson⁹ also described peculiar intranuclear inclusions in

type II cells in human neoplasms of the lung. Karrer¹⁰ and Adamson¹¹ correlated the ultrastructure of alveolar-cell carcinoma in animal lung with the general architecture of type II cells. Together with the occurrence of type II cells in such cases, the presence of "metaplastic epithelium" is often emphasized.^{12,13} The alveolar cuboidal lining cells of DIP are now also thought to derive from type II cells.

The patient found to have DIP, as well as carcinoma of the larynx in 1966 and reported by us in 1968, and in whom the basic upper and lower respiratory disease was considered possibly precancerous, has subsequently, in 1972, developed lung cancer.

When first seen at the Will Rogers Hospital (Saranac Lake, New York) in 1966, this 67-year-old man had smoked cigarettes since the age of 16. He complained of weakness, fatigability, exertional dyspnea, and cough that had increased over an interval of two years. He recounted no significant occupational or environmental exposures. History was not otherwise of importance. He appeared chronically ill. He had digital clubbing, many fine rales over the lower portions of both lung fields, and palpable enlargement of both liver and spleen. The right vocal cord was thickened, inflamed, and contained a wartlike growth which (by biopsy and histologic examination) proved to be an epidermoid carcinoma *in-situ*. This total cord was surgically excised shortly after admission.

Roentgenographic studies of the lungs (Figure 1)

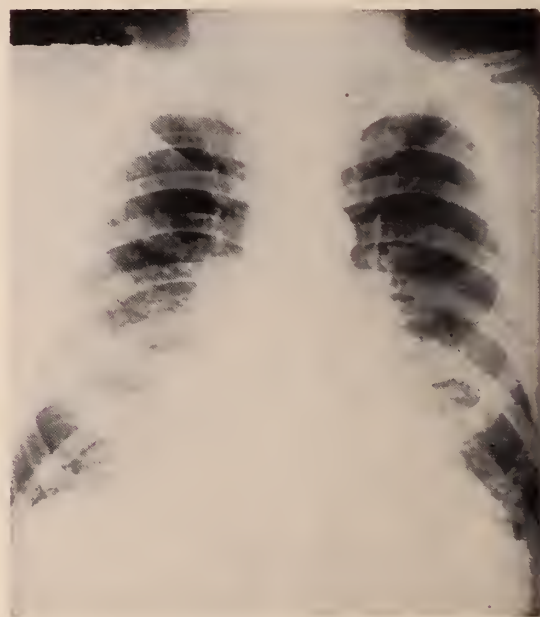


Figure 1—Roentgenogram, February, 1966, showing fine mottled shadows diffusely distributed throughout lower lung fields bilaterally.

showed fine and diffuse reticular densities bilaterally, most impressive in the mid and lower zones.

In March, 1966, exploratory thoracotomy with sampling of the right lower lobe established the diagnosis of DIP, described in detail in the former report² and confirmed by consultative review by Dr. Liebow. Post-operatively, the patient was treated with prednisone and he became comfortable, even on exertion. Receiving prednisone at a maintenance dose of 15 mg. daily, he was discharged symptomatically improved in June, 1966.

Readmitted for re-evaluation in October, 1966, the patient reported that dyspnea and cough of much lesser degree now occurred only following greater than moderate exertion. Roentgenographically, his lungs showed far less bilateral infiltrative disease (Figure 2).

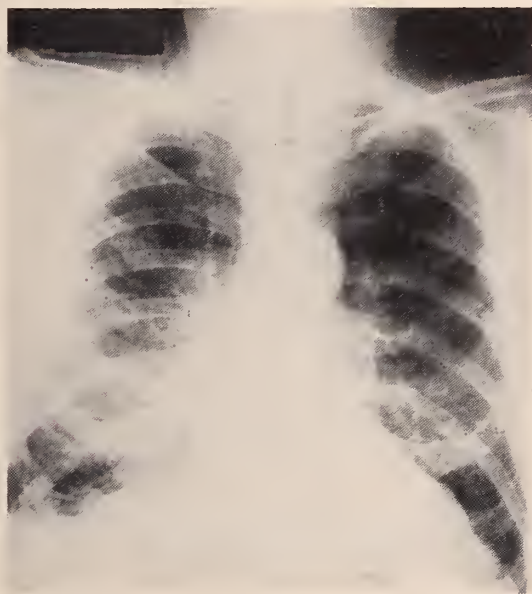


Figure 2—Roentgenogram, March, 1968, showing clearing of parenchymal infiltrates. Septal and fibrotic changes on right attributed to thoracotomy.

Some increase in pleural and septal fibrosis on the right was attributed to the thoracotomy. The patient's liver and spleen were still palpably enlarged; he denied a history of excessive ingestion of alcohol. A liver biopsy was done on October 5, 1966, showed no gross abnormality, but *histologically* the liver-biopsy specimen disclosed that the parenchymal cells surrounding the central veins contained small amounts of intracytoplasmic neutral fat globules as well as fine light brown intracytoplasmic granules. These sections were stained for fat as well as for iron. Only a rare one of these minute granules proved to contain iron and were assumed, therefore, to be lipofuscin granules. Following the liver biopsy, the patient's prednisone was gradually reduced and finally altogether discontinued in November, 1966. He was again discharged from the hospital in satisfactory condition.

Although remaining fairly comfortable over the next five years, the patient was never totally free of exertional dyspnea and he frequently required antimicrobial therapy for respiratory infections. He continued

to smoke cigarettes and he developed habits of excessively using sedatives, hypnotics, and expectorants. In January, 1972, during an interval of increase in dyspnea and cough, many rales were heard over his right lower hemithorax. Some symptomatic improvement followed therapy with postural drainage and antimicrobial drugs, but symptoms worsened in March, 1972 and roentgenograms of his lungs showed an enlarging density in the right lower lobe. Serum alkaline phosphatase level was elevated; one of six sputum specimens contained cancer cells. On March 28, 1972 he returned to the Will Rogers Hospital.

The patient, now 73 years of age, complained of dyspnea on slight exertion, cough productive of small amounts of mucoid material, and diffuse aching most severe in his limbs. Having resumed prednisone medication intermittently and in small amounts, he discontinued its use totally several months earlier, believing himself to be allergic to the medication but unable to describe manifestations of allergy.

Chest roentgenogram and tomogram (Figures 3 and 4) confirmed the presence of a circular density with an irregular border in the posterior basal segment of the right lower lobe. The previously seen shadows attributed to DIP had cleared. Physical examination failed to localize intrathoracic abnormalities. The liver and spleen no longer were palpable; digital clubbing remained unchanged.

The level of alkaline phosphatase in the serum was just above normal limits. Histologic studies showed cells typical of malignant tumor to be present in his sputum.

Physiologic tests of pulmonary function on this patient showed that, when first studied in 1966, moderate hyperinflation and moderate airway obstruction were present but improved during his hospital stay. Although the initial diffusing capacity was not abnormal, a significant increase occurred on later tests. This was thought to result from improvement in ventilation-perfusion relationships. When he returned in 1972,

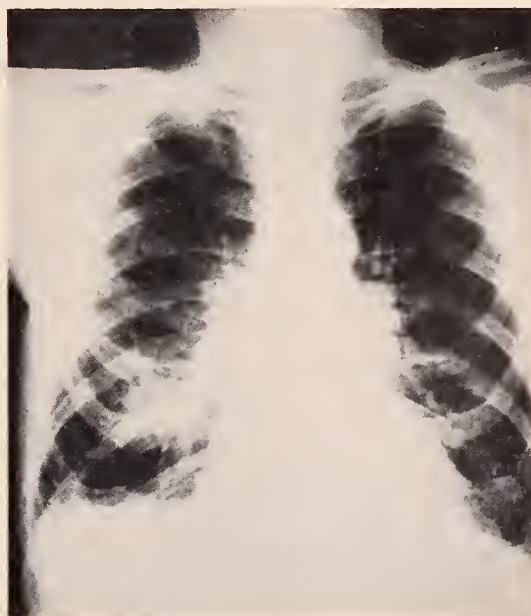


Figure 3—Roentgenogram, March, 1972, tumor in posterior basal segment of right lower lobe.



Figure 4—Tomogram, March, 1972, tumor in posterior basal segment of right lower lobe.

his slow vital capacity was normal; hyperinflation was greater than at any time previously but the airway obstruction was less than in any former test. Partial reversibility following bronchodilator implied an element of bronchospasm. The diffusing capacity and fractional uptake of carbon monoxide were normal. It was noted that the changes in diffusing capacity paralleled the changes in the forced flow studies so that these most likely reflected improvement in the ventilation-perfusion relationships related to airway obstruction. The same relative ratios were true also between the degrees of hyperinflation and the changes in vital capacity. Arterial bloods drawn on each occasion that pulmonary function studies were performed showed normal values for pH and for oxygen and carbon dioxide tensions.

On April 18, 1972, the patient again underwent thoracotomy. Initial endotracheal inspection indicated excellent healing since the excision of the right vocal cord six years earlier. Apparently resulting from his former thoracotomy, multiple pleural adhesions covered the right lung and required difficult dissection, resulting in several superficial air-leaks. The right lower lobe was freed and excised. It contained a tumor at what appeared to be the site of the former thoracotomy scar overlying the posterior basal segment and identified by an umbilicated area of thickened pleura attached by a plaque of fibrous tissue to the parietal pleura.

The patient survived the surgery well, but developed cardiac arrest. He did not respond to efforts of resuscitation, and died on April 21, 1972. Necropsy showed as follows:

Dissection of the bronchial tree of the posterior basal segment of the resected right lower lobe led into a peripheral pale mass measuring 4 by 3 by 3 centimeters over-all dimensions and having an irregular and scalloped edge. Microscopic examination identified this as epidermoid carcinoma, squamous in some regions, with keratin pearls and cornified epithelial cells. Some of these cells formed solid sheets separated by thick irregular bands of fibrous stroma. Foci within

the mass were necrotic but invasion beyond the primary neoplasm was not discovered.

Both the resected lobe and the remainder of the lungs examined after autopsy showed emphysema peripherally and subpleurally but of variable degree elsewhere. Fibrocollagenous changes involved much of the interstitium with reduction in elastic tissue, loss of capillary vascularity and hypertrophy of the arterioles. Considerable lung tissue appeared entirely normal. In many areas, however, alveolar septa showed indistinct fibrils, hyalinization or frank interstitial fibrosis. Foci of squamous metaplasia of bronchial mucosa were still detectable, but no evidence of active DIP was seen and no inclusions were visible under bright-light microscopy. Despite focal hyperplasia of terminal bronchioles, no littoral epithelial hyperplasia, characteristic of the original biopsy, remained. The pathologist confirmed the tumor to be placed at the site of the earlier biopsy.

Autopsy disclosed the cause of death of the patient to be thrombotic occlusion of the right coronary artery consequent to atherosclerosis, with infarction of the posterior myocardial wall and the interventricular septum. Right ventricular hypertrophy, characteristic of cor pulmonale, was evident. Other gross findings included an enlarged spleen (400 gm.) and liver (2000 gm.), irregular nodular thickening of the cortex of both adrenal glands, and acute passive congestion. Histologically, the spleen and liver showed only passive congestion; no hepatocellular inclusions or brownish discolorations as noted in the liver biopsy six years earlier could be identified. The adrenal cortex showed no "iatrogenic" atrophy suggestive of recent or prolonged corticotherapy.

Certain circumstances, such as the occupational exposure to chromates,¹⁴ seem specifically and directly associated with the development of lung cancer. In many other instances of human pulmonary cancer, two or more factors may summate in some etiologic manner. Uranium dust,¹⁵ atomic radiation,¹⁶ mustard gas,¹⁷ and asbestos fibers¹⁸ have all been incriminated as pulmonary carcinogens, but rarely, if ever, are they found to induce cancers in individuals who are not also cigarette smokers. Effective antituberculosis therapy has shifted the median pool of tuberculosis into older population groups and among these individuals the development of lung cancer at the sites of healing (inflamed) or healed (fibrotic) disease is becoming increasingly apparent.^{19,20} Other forms of alveolar and interstitial fibroses with atypical epithelial proliferation (cuboidal and columnar cells characteristic of proximal bronchioles extending into terminal air spaces; squamous metaplasia or marked stratification among the proximal cuboidal-columnar cells) have been associated with the development of cancer.^{5, 6,13} In particular, Haddad⁴ (reporting eight

such cases with atypia in all and carcinoma in three) described frequent nuclear and cytoplasmic changes suggesting progression toward frank malignancy. DIP, sharing many of these histologic similarities, may become listed in these groups of predisposing conditions.

When first reported, the patient with DIP now again being discussed, provoked speculation about the possibly precancerous nature of the disease. Since, after six years, this patient developed a second respiratory cancer (the first in the larynx, the second in the lower tract) the initial conjectures merit re-examination.

At death, the patient was 73 years of age and for many years had smoked cigarettes; thus, development of lung cancer is not remarkable. The following, however, are submitted for consideration:

(a) Emphysema is also smoke-related;²¹ emphysema was not a major finding in this case.

(b) Other "high-risk" circumstances linked with lung cancer share the added factor of cigarette smoking.

(c) The patient, originally shown to have DIP, developed two respiratory cancers within six years.

(d) The alveolar-lining cells of DIP and the malignant cells of certain lung cancers have been identified under electron microscopy as type II granular pneumocytes containing similar inclusion bodies not thought to represent virus.

(e) Liver biopsy in this patient in 1968 disclosed hepatocellular inclusions and brown granules with no alteration of architectural structure or suggestion of fatty or iron phanerosis. In the earliest cases of DIP reported, the cellular inclusions of "brownish cytoplasm"^{1,3} also suggested lipid or hemosiderin but proved to be neither. Since these hepatocellular changes in the patient herein presented and subsided together with the pul-

monary lesion of DIP after corticotherapy, one wonders if the primary disease might not involve organs other than the lung. To our knowledge, liver biopsy has not been performed in other cases of DIP. Might DIP be a systemic condition, aggravated by cigarette smoking?

(f) It is conjectual whether the development of lung cancer at the site of previous thoracotomy biopsy supplied a third, mechanical, summing factor favoring progression of DIP to frank pulmonary carcinoma.

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*AVAILABLE ON REQUEST: Ronald I. Goldberg, M.D. & Franklin I. Shuman, M.D. Double-blind study on the treatment of mentally confused patients. Reprinted from the Journal of the American Geriatrics Society, Vol. XII, No. 6, June 1964.

When hair is studied with microscopy and with polarized light, changes are found to correlate with intake of psychotropic drugs.

Hair Crystallinity and Its Relation to Drug Use

Preliminary Report of an Experiment*

**Ilona Bubelis, M.D., Trenton,
Arthur Sugarman, M.D., Princeton, and
Mary Jakovics, B.S., Portland, Oregon**

Changes in appearance, growth, and pigmentation of hair may manifest various disease processes. These are usually linked to disturbed protein or amino acid metabolism, as well as certain endocrine disorders. Prolonged treatment with various tranquilizers changes the pigmentation of hair. Chemical analysis¹ reveals accumulation of chlorpromazine in hair.

Preliminary investigation was designed to relate visual changes in hair appearance to microscopically observable changes in structure. The studies were conducted at Trenton Psychiatric Hospital, Trenton, New Jersey. Examination of hair from patients receiving anti-psychotic drugs revealed changes in optical properties of hair which were apparently associated with drug intake.

Hair is readily available and grows at a fairly constant rate, from 10 to 13.5 millimeters a month. It was decided to explore to what extent changes in crystallinity and structure of hair could be correlated to drug dosage and duration, as well as the prevalent clinical history and pathologic condition of unknown etiology.

Hair was selected from patients at New Jersey Neuropsychiatric Institute and Rockland

State Hospital, New York. The hair specimens were cut some distance from the scalp without following any specified sampling procedure. The hair samples obtained were from patients receiving chlorpromazine hydrochloride, trifluoperazine hydrochloride, perphenazine, AL-449, AL-1021, sordinol, and CL-71563.

To arrive at a "control," patients receiving no medication were grouped together and the distribution of polarization colors calculated on the basis of 100 is plotted in Figure 1. The point above green is the sum of all polarization colors in second order above green. There are two peaks, one in sky blue and a second smaller in red-orange, which reflect the distribution of fine and coarse hair in the group. The birefringence data for AL-449, CL-71563, sordinol, chlorpromazine hydrochloride, chlorprobazine hydrochloride/trifluoperazine hydrochloride, perphenazine and AL-1021 were grouped in the same manner (See Table 1.). Distribution of polarization colors was calculated on the basis of 100 and plotted against the "control."

Our slides taken at 400x illustrate the major peaks for each drug. They also show the presence of granules and uneven pigment distribution.

Ten individual hairs (if available) from each patient were mounted longitudinally in

*This work is from the Trenton Psychiatric Hospital, Trenton, New Jersey.

methacrylate and examined in polarized and oblique light. The appearance of polarization colors with crossed Nichols was used for comparison of birefringence which depends on refractive indices.



Figure 1—Normal hair with hair follicle. Dark granules are present in the medulla. The pigment particle size and density increases with darkness of the hair. The white hair has voids of pigmented granules.

Table 1
Birefringence

Drug No. of Patients No. of Hairs	White	Straw Yellow	Light Yellow	Bright Yellow	Brown Yellow	Red Orange	Red	Purple	Indigo	Sky Blue	Green Blue	Green
No Drug 19-175												
Princeton & Rockland		3	5	4	11	14	7	17	19	39	12	18
AL-449 5-49												
Princeton	3	2	—	6	10	7	—	8	4	6	2	
CL-71,563 11-103												
Princeton	—	—	—	19	23	4	—	9	26	15	3	4
Sordinol 10-75												
Rockland	—	—			3	3		2	11	23	15	3
Thorazine 4-40												
Princeton	2	—	—	—	4	2	1	2	3	11	4	6
Thor/Stelazine 5-50												
Princeton	—	—		—	5	2	1	8	7	11	8	4
Trilafon 3-28												
Rockland	—	—	—	3	7		—		5	6		
AL-1021 5-45												
Rockland	—		—	4	7	3	2	9	10	2	3	—

Oblique light was used for spotting granules in the cortex. The granules are believed to be hollow shells. They are normally concentrated in the cortex right above the root and appear to go into the building of the medulla. The frequent appearance of these granules throughout the patients' hair cortex appears to indicate that a normal process is malfunctioning.

The diameter of each hair was measured and recorded along with its polarization color. The numerical value of the birefringence of each hair was read off the Michael-Levi chart and recorded. After excluding any obviously off values, the average birefringence, standard deviation, and per cent relative standard deviation were calculated.

For histologic observations, the hair was cut previously, fixed in formalin and embedded haphazardly into the paraffin blocks. The sections were cut at 5 microns in thickness and stained with hematoxylin and eosin, toluidin and crystal violet stains. The specimens select-

ed for histochemical observations were those with more predominant findings examined by

the polarizing microscopy.

It appeared that there is a typical "normal" birefringence for each individual which shifts up or down with the usage of a drug over an extended period of time. We observed several patients taking different drugs over a period of one and one-half years and found that the birefringence was shifting up or down as drugs were changed, but we could not necessarily correlate the birefringence of one individual on a given drug with that of another taking the same medication.

Apart from the correlation between drug dosage and birefringence, two major structural differences from normal were observed in about 50 per cent of patients' hair: (a) Voids through the entire length of the hair and (b) Pigment clumping together with discontinuity in crystalline structure. Both conditions were

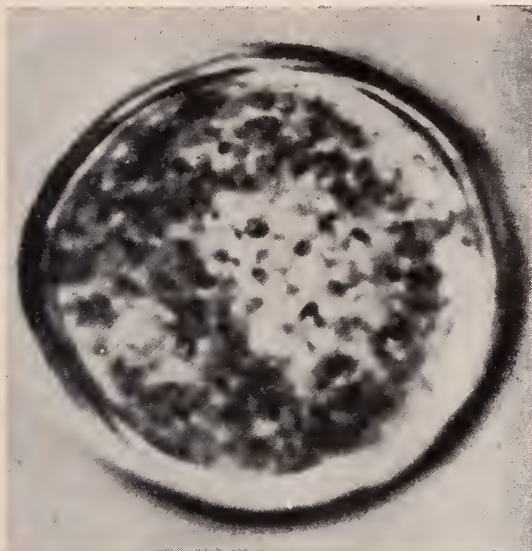


Figure 2—Cross section of a pigmented hair (dark hair). The pigment is seen in the center portion throughout.

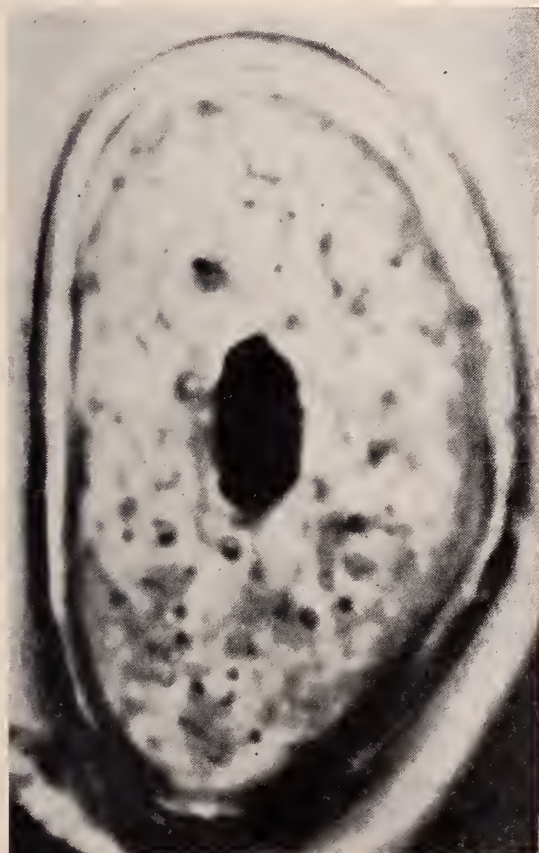


Figure 3—Cross section of a white hair. Voids of pigment are seen.



Figure 4—Longitudinal section of a patient's hair receiving Thorazine (640x). The pigment distribution is seen more at the outer layer. The medulla shows irregular structures.



Figure 5—Patient's hair receiving AL-449 (640 x). Pigment deposits are seen distributed throughout the medulla and cortex.

observed simultaneously in some patients. In others, only one or no deviation from normal was apparent.

It is known that changes in the hair take place when it passes through the neck of the bulb. Here, pre-keratin substances are produced and non-keratin substances eliminated simultaneously. In polarized light, sharp changes in birefringence and structure can be observed in this region. The dark spots are "hollow shells" or cavities filled with amorphous material. In bright field, the hair appears almost transparent and colorless due to the fine subdivision of pigment. By illuminating the hair with oblique light (to give a simulated "dark field" effect) the "hollow shells" or voids appear as bright "granules".

Above the bulb, as denser pigmentation develops, the voids or granules gradually disappear at the same time as the medulla is formed. These changes are generally much less pronounced in the fine hair which often does not develop a medulla.

There seems to be a deviation in this sequence of events in the case of some patients where the voids or granules are found throughout the entire length of hair. The voids may be observed in cross sections in bright field.

Pigment particle size and density generally increase with darkness of the hair, but not to the point of actual clumping, as has been observed in some patients' hair. Large clusters were observed in bright field as well as polarized light. In addition, there is a definite discontinuity in the crystalline structure which might be due to the presence of pigment clumps.

Table 2
Presence of Granules

Drug	Per Cent—Hairs with granules
No drug	52
AL-449	67
CL-71,563	70
Sordinol	35
Thorazine	45
Thorazine/Stelazine	28
Trilafon	54
AL-1021	20

Microscopic Observation:

The selected specimen from the patients receiving chlorpromazine hydrochloride revealed a poorly outlined cuticle in the longitudinal sections. The dark granules were mainly distributed immediately beneath the cuticle. On higher magnification, some granules were noted with the cuticle. These seemed to have a tendency to form longitudinal strands, seen mostly in the peripheral portions. The central portion (which corresponds to the medulla) showed only occasional and rather regular pigment distribution. On cross-sections, similar distribution of pigment was noted. The central portion presented rather basophilic, irregular structures, some of which indicated cellular features. Under oil immersion, cystic changes were observed.

The specimen from the patients receiving AL-449 revealed more pronounced changes in the medullary portion in the longitudinal sections. The outermost layer of the cuticle showed more irregularities. The pigment deposits indicated a clumping tendency in the medulla, but were rather equally seen throughout the entire cuticle portion.

The pigment granules were deposited more in the center than in the patients' hair treated with chlorpromazine hydrochloride. In the cortex it seemed that there was a definite clumping phenomenon of the pigment. In addition, the cross sections showed some bright pink granules, which were noted chiefly in the cortex immediately adjacent to the medulla. The nature of the pink granules is not known.

Specimens from the patients receiving sordinol revealed pronounced diffuse eosinophilic density throughout the cortex, cuticle and medulla. In longitudinal sections, marked scaling of the outer layer of the cuticle was noted. The pigment granules showed rather equal distribution, except for larger clumps which were located toward the center. Within the medulla, well preserved endothelial cells were seen. In these, some granular basophilic changes were noted. It seems to us that a smaller amount of pigment deposits could be

seen in the center portions than those specimens treated with AL-449.

The specimens from the patients receiving trifluoperazine hydrochloride revealed a rather well preserved cuticle. The pigment formed elongated clumps closer to the outer portion of the cortex. Within the medulla, no pigment was present.

Eosin uptake was of normal density. Epithelial cells within the medulla occasionally revealed some cystic changes of cytoplasm. Cross sections of this specimen showed findings similar to those described in the longitudinal sections.

Histologic observations indicate differences in the density of cytoplasm of the epithelial cells in patients using different drugs. There is also an indication that the dark granules vary in the pattern of distribution. Basophilic changes seen in some samples cannot be explained with the present histochemical methods.

Discussion:

Regulation of the human hair cycle is one of the most interesting biologic processes. The hair follicle develops in the second to fifth month of intra-uterine life. Then, hair changes its character. Some of the fine short lightly pigmented hairs of childhood become long, dark, and thick hair of the adult. Some, however, become intermediate. In general, the diameter of the hair growth and hair pigmentation increase with age.

The hair of the scalp grows for about a thousand days and then will rest for a hundred days. First is the "anagen phase" and the second one is the "catagen phase." The growing hairs in the anagen phase use more oxygen than in the catagen phase.

Amino acids are the essential building blocks of hair and any metabolic alteration in them might be revealed in hair. Genetic disorders are often reflected in the structural changes of the hair.⁴ Considerable differences between the amino acid analysis of human hair are reported in the literature. These may be asso-

ciated with certain mental defects.⁵ The analysis was done on cystine content, revealing only half of the cystine in mentally retarded individuals compared with the hairs of normals.

The changes noted in the histologic structures of the hair may be linked to trichohyalin droplets which develop in the epithelial cells within the hair root. As the hair grows the hyaline shows changes in the cytoplasm of the cells. The first droplets in the bulb are isometric. At the level where the hair grows above the epidermis these become birefringent.² The morphologic changes may be secondary to the keratin distribution, which may change under different biologic, physiologic, and pathologic conditions.

Three forms of keratin are recognized in human hair.⁶ One is elaborated through the formation of amorphous cytoplasmic granules. Another form is produced from cytoplasmic fibrils, and the third one through manufacturing of both fibrils and granules. Therefore, it is possible that the change in structure and color of the hair may be found in the prekeratinization or regions where the production of keratin and elimination of keratin takes place. Dark granules were observed with light microscopy in the cells of the cortex and medulla. These probably derive from the melanocytes in the hair bulb and the cortical cells.

In the specimens examined, the changes in the distribution of the dark pigment could indicate biochemical amino acid or pigment metabolism abnormalities. The observations in our material showed difference in cellular structure of individuals with different drug intake.

We do not know the mechanism of the changes in birefringence. This may be due to accumulation of the drug or its metabolites in the hair as has been shown to be true with chlorpromazine hydrochloride. Forrest and Bolt¹² reported 124 micrograms per grain in hair which is about tenfold of the average found in other tissue, with the exception of

the lung. If a drug is excreted at an even rate proportional to dosage, then the accumulation of the excreted drug may be greater in the catagen phase. This may explain why the per cent relative standard deviation within sample was generally very high. We also do not know what difference in birefringence, if any, may be normally present between the anagen and catagen phases. These considerations explain the limited success of the study as far as correlation of drug dosage and birefringence is concerned. In further analysis the question arises as to whether the intracytoplasmic changes in keratin and melanin are related to each other or should be considered as two separate pathogenic entities.

What has been observed in the present study by histochemical and polarizing microscopy methods indicated that hair may be potentially valuable diagnostic material.

Trenton Psychiatric Hospital

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Osteomyelitis in Heroin Addicts

The medical profession should be aware of an unusual problem associated with heroin addiction—*Pseudomonas* vertebral osteomyelitis induced by self-inoculation with contaminated needles. Three Loma Linda University physicians said that they have encountered five addicts with *Pseudomonas aeruginosa* infection of the vertebrae, and detailed three of the cases at the annual meeting of the American Academy of Orthopedic Surgeons. Positive identification of the infecting organism was obtained by needle biopsy in two of the patients and by open biopsy in one.

The patients were known heroin addicts with several weeks' history of low back pain. In each, low-grade fever and normal white blood cell response were observed. In two of the patients, x-rays disclosed narrowing of the affected intervertebral space and destruction of adjacent vertebral bodies at the time of

hospital admission. These changes were not apparent at that time in the third.

"Later in the course of their disease," the investigators said, "two patients demonstrated involvement at an adjacent level." Two of the patients were treated successfully with gentamicin and carbenicillin, and the third with gentamicin alone.

"Spontaneous bony fusion occurred in all three cases in less than one year with no attempt at surgical arthrodesis," said the Loma Linda University physicians.

Hematogeneous vertebral osteomyelitis "should be suspected in instances of localized back pain with muscle spasm in addicts, and diagnosis should be confirmed by needle or open biopsy to facilitate accurate bacteriologic diagnosis and appropriate antibiotic therapy."



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Joint Statement on Antisubstitution Laws and Regulations

The purpose of this statement is to affirm the support of the participating organizations for the laws, regulations and professional traditions which prohibit the unauthorized substitution of drug products.

Traditionally, physicians, dentists and pharmacists have worked cooperatively to serve the best interests of patients. Productive cooperation has been achieved through mutual respect as well as a common concern for the ideals of public service. This mutual respect has been reflected, in part, by joint support over the years for the adoption and enforcement of laws and regulations specifically prohibiting unauthorized substitution and encouraging joint discussion and selection of the source of supply of drug products. The basic principles of medical, dental and pharmacy practice are thus utilized and preserved in the interest of patient welfare.

The antisubstitution laws have not obstructed enhancement of the professional status of pharmacy any more than they have in and of themselves guaranteed absolute protection from unsafe drugs, or freed physicians, dentists and pharmacists from their responsibilities to patients. As a practical matter, however, such laws and regulations encourage inter-professional communications regarding drug product selection and assure each profession the opportunity to exercise fully its expertise in drug usage, to the advantage of patients.

Physicians and dentists should be urged to increase the frequency and regularity of their contacts with pharmacists in selection of quality drug products, recognizing that

economies to patients can be improved through such communication, taking into account the patients' needs. The pharmacist's knowledge of the chemical characteristics of drugs, their mode of action, toxic properties and other characteristics that assist in making drug selection decisions should be utilized to the fullest extent practicable by physicians and dentists in serving their patients.

Since drug product selection entails knowledge derived from clinical experience, the physician's and dentist's roles in product selection remain primary and do not permit delegation of decisions requiring medical and dental judgments. A broader role in therapy will evolve for pharmacists as improved understanding and cooperation among the professions continue to grow.

There has been no evidence that there are convincing reasons to modify or repeal existing laws and regulations prohibiting the unauthorized substitution of another drug product for the one specified by a prescriber. It is our belief that such laws and regulations merit the joint support of the medical, dental and pharmaceutical professions and the pharmaceutical industry.

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Penicillium Infection in Man

A Review*

**Richard T. Pederson and
Leon G. Smith, M.D./Newark**

Fungi of the genus *Penicillium* is a rare cause of infection in man. While ubiquitous in its distribution as a saprophytic organism, it is rarely pathogenic in either the compromised or normal host.

Acute disseminated penicilliosis was reviewed by Huang and Harris¹ in 1963. They described a syndrome consisting chiefly of broncho-pulmonary disease characterized by cough, hemoptysis, and weight loss, in many cases resembling tuberculosis. In the cases cited there was no underlying disease. *P. Crustaceum* was the most frequent organism isolated and interestingly in most cases the response to potassium iodide therapy was good.

Infection of the genitourinary tract has also been reported.^{2,3} Salisbury and Chute² have isolated *Penicillium* from the human bladder. Gilliam³ reports of a case of *P. citrinum* infection presenting as renal colic. This particular infection had been present for twelve years and was characterized by intermittent flank pain and passage of boluses of fungi.

Central nervous system involvement by *Penicillium* is reported.^{1,4,5} The case of penicilliosis described by Huang and Harris¹ had a metastatic focus in the right superior frontal gyrus, and Polyanskiy⁴ reported a temporal lobe abscess following otitis media. More recently Morris and Spock⁵ reported a fatal mycotic aneurysm of the internal carotid ar-

tery in an eleven-year old boy who had no underlying disease.

Penicillium species have been isolated in some cases of keratitis.^{6,7,8,9} In 11 of 109 cases of keratomycosis reported by Gingrich⁸ *Penicillium* species were found. Zimmerman,⁹ in his discussion of mycotic keratitis, points out that it is probably never an infection of the healthy eye, but secondary to the widespread use of topical steroids and antibacterial antibiotics.

Penicillium has occasionally been the infecting agent in ear infections. This fungus has been recovered from otitis externa and Smyth¹¹ found *Penicillium* species in 2 of 109 cases of infected postoperative mastoid cavities. Antibiotics and hydrocortisone were reported as predisposing factors.

Allergic response to *Penicillium* mold spores has been implicated in asthmatics^{12,13} and in certain skin lesions.^{14,15,16} Thus, Hansen¹² found several *Penicillium* species to be capable of inciting asthmatic attacks and Fujisawa¹⁴ reported eczematous dermatitis and eczematous reactions following intradermal tests with *Penicillium* and *Aspergillus* antigen. Dermatologic disease occurring concomitantly with increased numbers of spores in the air has been reported by Clarke.¹⁵ Erythema annulare centrifugum secondary to *Penicillium* was reported by Shelley.¹⁶

Penicillium infection is a rare cause of Mycetoma.¹⁷ *P. marneffei* was the causative organ-

*From St. Michael's Medical Center, Newark.

nism in a laboratory accident in which inoculation of the fungus into a researcher's finger led to a nodule and axillary adenopathy.¹⁸ Robertson¹⁹ reports on the finding of *Penicillium* species in a cracked intravenous bottle. Disease potential in this case was unknown, but the patient was treated prophylactically with amphotericin B. Aflatoxin,²⁰ a substance produced by some species of *Aspergillus* and *Penicillium* species can also produce the coumarin-like substance of aflatoxin. The possible role of this substance in human liver disease remains to be clarified.²¹

Penicillium species have also been implicated in superficial infection of hair, skin, and nails.^{21,23} *Scopulanopsis brevicaulis* is a *Penicillium*-related fungus that has been reported to cause onchomycosis.^{22,23}

Penicillium is thus an organism observed in a wide variety of human infections. While found in the compromised host in some cases, an immunosuppressed state is by no means a *sine qua non* of infection by this agent.

A list of 23 bibliographic citations is available from the author.

306 High Street

The Papaya—A Popular Item on the Medical Menu

Medical marvels come from unusual places. Lithium, for example, an effective treatment for mood disorders such as depression, is found in stone (lithos in Greek) and in various minerals and the sea. Digitalis, a heart stimulant, came from the foxglove plant. And now the papaya has been plumbed for a substance that has proved effective in treatment of a serious back problem. (AMA News of September 3, 1973). On a less serious note, the same substance has been found to be just the thing for insect sting.

It has long been noted that Polynesians wrapped pieces of meat in papaya leaves to make the meat tender. And modern meat "tenderizers" contain the enzyme, chymopapain, which is derived from papaya leaves. Medical investigators reasoned that the enzyme might also be used to treat an ailment called herniated disk. In this condition, one of the disks which separate spinal vertebrae ruptures and its gelatinous core material protrudes, pressing against nerves and causing severe pain. Commonly called "slipped disk," often it is serious enough to warrant surgery.

As an alternative, the investigators wondered if the papaya enzyme could do to disk material what it and the Polynesians together did to a tough steak—soften it and eat it up. They tried it and it worked. To date, more than 7,000 patients have been treated with this method—called chemonucleolysis—by 35 investigators in North American.

Orthopedic surgeons emphasize that the procedure can be used only on carefully selected patients. Extreme care must be taken in the technique, which involves injecting the enzyme into the spine with several needles.

Another benefit of the papaya enzyme was described in a letter to *JAMA* by Dr. Harry L. Arnold, Jr., of Honolulu. An immediately effective remedy for painful insect stings can be found in most kitchens, he said—meat tenderizer. The remedy is prepared by mixing a quarter-teaspoonful or so of tenderizer with a teaspoonful or two of water. The solution is merely rubbed into the skin at the site of the sting, and virtually all pain stops within seconds."

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Gas gangrene, once a death sentence, can be controlled with modern methods of therapy, as shown in these three reports of successfully treated cases.

Gas Gangrene After Abdominal Surgery

A Report of Three Cases

Stanley S. Fieber, M.D./West Orange*

Gas gangrene is often regarded as a disease associated with war or other casualty situations. However, postoperative clostridial infections are being reported with increasing frequency.³ Experience with three personal cases following abdominal surgery in a nine-month period prompted a review of the subject.

In the past, gas gangrene was treated by debridement and extensive excision of the wound. Infection which extended past the hip or shoulder joints carried 100 per cent mortality. Following the discovery that the disease was caused by anaerobic bacteria, hydrogen peroxide and zinc peroxide creams were used topically. This was ineffective when deeper areas (such as muscles) were involved. After World War II, it was demonstrated that large doses of penicillin could cure patients with mild infections. In 1960, Boerema and Brummelkamp,¹ administering oxygen at 3 atmospheres, saved the life of a patient in whom gas gangrene in the extremities had already passed the groin.

Clostridia are encountered in wounds as simple contaminants, as cellulitis, as myositis or as myonecrosis. The latter, *gas gangrene*, is an invasive, anaerobic infection of muscle, characterized by extensive local edema, massive tissue necrosis, variable degree of gas production, and profound toxemia. This is differentiated from anaerobic streptococcal myonecrosis by cultures.

The species of clostridium capable of producing gas gangrene are: (1) *C1. perfringens* (*C1. welchii*); (2) *C1. novyi*; (3) *C1. septicum*; (4) *C1. histolyticum*; (5) *C1. bifermentans*; and (6) *C1. fallax*. *C1. perfringens*, which was found in the three reported cases, produces an endotoxin, lecithinase (Alpha Toxin), which is capable of disrupting a cell wall. Local reaction caused by the toxin starts a vicious cycle at an alarmingly rapid rate. Systemic effects associated with the disease are produced by an elusive toxic agent. The cause of shock and death are unknown. Incubation period of the organism is short, usually less than three days.

Prophylactic antibiotics postoperatively may alter or mask the local or systemic clinical manifestations. Typically, the patients develop toxicity with mental confusion, fever, hypotension and hypovolemia. Leukocytosis, anemia, hypoalbuminemia, hyponatremia, hypokalemia, hypochloremia, and hypocalcemia are frequent concomitant features. The wound area becomes bronze colored, swollen, tender, and indurated—"bronze erysipelas"—with or without crepitation. Spread throughout the abdominal wall is rapid. Dissemination at the rate of ten centimeters per hour has been observed.⁷ Golden serous fluid in small to moderate amounts will drain from opened wounds. A sickly sweet odor may be detected and is attributed to the saccharolytic

*Director of Surgery, Community Hospital, Montclair and Clinical Associate Professor Surgery, CMDNJ, New Jersey Medical School, Newark

action of the toxin on muscle glycogen. In a series of 130 cases⁷ of clostridial infections, jaundice developed in 25 per cent; 59 per cent of those dying were icteric. Renal failure was also present in 16 per cent. This was attributed to tubular obstruction of hemolytic products and shock.⁷

All cases were monitored in the Intensive Care Unit. Meticulous fluid, electrolyte, nutritional, ventilating, hemodynamic and general supportive care was rendered. Cephalothin was started prophylactically in each case immediately after the surgical procedure that was responsible for bacteriologic wound contamination. Since the interval between the surgery and wound infection varied from one to three days and since all wound infections were mixed, it is difficult to evaluate the true effectiveness of cephalothin. This is also true for subsequent antibiotics used. As soon as a clostridial infection was suspected, the wound was widely decompressed and irrigated with a saline peroxide mixture. Case I was adequately managed by local debridement, antibiotics and intensive supportive care. Hyperbaric oxygen therapy in Cases II and III was dramatically helpful.

Table I

Summary of Three Postoperative Cases of Gas Gangrene			Cases of
Case:	I	II	III
Operative Procedure	Cholecystectomy	Enterotomy	Enterotomy
Postop. Incubation	3 Days	3 Days	2 Days
Onset	Acute	Gradual	Acute fulminating
Bacteriology of Wound	Cl. perfringens E. Coli	Cl. perfringens Enterococcus E. Coli Aerobacter Aerogenes	Cl. perfringens Aerobacter Aerogenes
Toxemia	Confused	Confused	Confused
Fever	Fever 103	Fever 101	Fever 103
Skin—			
a) Exudate	Clear yellow	Cloudy brownish blue	Clear Golden
b) Crepitation	Yes	No	No
c) Odor	No	No	No
Antibiotics	Cephalothin Kanamycin Chloramphenicol	Cephalothin Chloramphenicol Ampicillin	Cephalothin Penicillin G

Whenever a wound infection is suspected, the following protocol is recommended: Open the wound widely. Roding *et al*⁷ do not excise or debride. Take Gram stain smears of the exudate. Submit specimens of the exudate for aerobic and anaerobic culture. Irrigate the wound with a peroxide mixture. If the Gram stains show pleomorphic gram positive rods, start the patient on massive course of antibiotics. In each of the three cases reported below, clostridium perfringens was sensitive to ampicillin, cephalothin, chloramphenicol, erythromycin, vancomycin and nitrofurantoin.

Case One

The patient, a 64-year-old female, had abdominoperineal resection for carcinoma of the rectum in August, 1971. On May 20, 1972, she had an open reduction of a fracture of the right hip. Five days later, a cholecystectomy was done for gangrenous cholecystitis. Smears of the gallbladder bile revealed Gram negative bacilli and a culture produced *E. coli*. She was given a course of cephalothin, 8 gms. over an 8 hour period followed by 2 gms. every four hours for three days, and 2 gms. every six hours for two days. This was supplemented by kanamycin, 0.5 gms. intramuscularly for five days.

Two days later she became drowsy and lethargic. Temperature rose to 103. The next day she was restless and incoherent. The wound became swollen, tense and crepitant. 75 ml. of yellow, clear fluid was released from the open wound. Gram stain produced Gram positive and Gram negative bacilli with giant Gram positive rods. Cultures subsequently grew out clostridium perfringens and *E. coli*. The wound was completely decompressed and irrigated with saline-peroxide mixture twice daily. The next day the serous drainage took on a golden hue. She was given a course of chloramphenicol 500 mg. intravenously, four times daily, from May 31 to June 7. The wound was closed on June 13, 1972, with through and through retention sutures under intravenous ketamine anesthesia. Thereafter convalescence in a nursing home was uneventful.

Case Two

A 79-year-old female had lysis of adhesions and small intestinal decompression for acute obstruction on March 23, 1973. The patient was put on intravenous cephalothin, 4 gms. initially and 2 gms. every eight hours for the first five postoperative days. Three days later she became confused and disoriented. She had a low grade fever up to 101.4. On March 28 the lower third of the abdominal incision became swollen, red and tender. A hundred ml. of brown, bluish-red, cloudy material was released. The wound was irrigated with saline and peroxide. Gram stains revealed Gram positive and Gram negative rods. Two days later, culture reports showed clostridium perfringens, enterococci, *E. coli* and aerobacter aerogenes. Skin sutures and retention sutures were removed and the wound was widely decompressed and irrigated with saline and peroxide. The patient was given 500 mg. of chloramphenicol, intravenously every eight hours for the next five days. Despite mechanical debridement of multiple abscesses and loculations myonecrosis progressed.

Starting on May 3, the patient was given ampicillin, intravenously, 5 gms. daily for two days, and 2.5 gms. daily for two days. She was started on a course of hyperbaric oxygen at St. Barnabas Hospital on April 7. The wound healed readily by secondary intention thereafter. Repeated cultures of the wound produced *E. coli* and enterococci.

Case Three

A 51-year-old male, had an enterotomy through a left rectus muscle splitting incision on December 16, 1972. A 10 by 5 by 5 cm. foreign body (orange pulp) was removed. The patient was put on cephalothin intravenously, 4 gms. immediately and 2 gms. four times daily for three days. On the first postoperative day, the patient ran a 103 fever. On the second postoperative day, the patient became septic and toxic. The wound became bronzed and phlegmonous. A brownish, indurated swelling disseminated from the left rectus muscle splitting incision down to the penis. Old healed incisions in the right upper quadrant and left groin also became bronzed. The left rectus incision was decompressed down to the peritoneum. Gram stains of a golden serous exudate revealed gram positive and gram negative rods. The entire abdominal wall was undermined in its subcutaneous space. The operative incision was joined with the three old incisions and a newly created, large transverse lower abdominal incision with Penrose drains. Cultures subsequently produced clostridium perfringens and aerobacter aerogenes. The patient was given 60 million units of penicillin on December 18 and 19 and 20 million units daily for four days thereafter. On December 18, he was started on a course of hyperbaric oxygen at St. Barnabas Hospital. Clinical improvement was dramatic within 12 hours. Daily cultures of the wound produced a klebsiella pneumoniae, on two occasions. All blood cultures were negative for growth. On December 22, 1972, the patient had an evisceration. A clearly defined line of demarcation between viable and necrotic muscle 5 to 15 mm. from the wound edges, made debridement of non-viable tissue easy. The wound was closed with through and through nonabsorbable sutures. At the time of discharge (January 6, 1973) the wounds were healed and the patient was asymptomatic.

One of the most rational concepts for therapy of gas gangrene is early administration of oxygen at high pressure.^{5, 6} The Saint Barnabas Hospital in Livingston routinely uses ten hyperbaric oxygen treatments three times daily for two days and two times daily for two days, each for 90 minutes at 60 feet. In a collective review of 267 proven cases of clostridial infection treated with hyperbaric oxygen over the past 11 years, the mortality of "salvageable" cases was 9 per cent. The over-all death rate (which included patients moribund on arrival at the chamber) was 23 per cent.² For the

most effective treatment, surgery and antibiotic therapy had to precede exposure to HBO.^{3A}

Appropriate intensive ventilatory, hemodynamic, and supportive care is rendered as needed. Extensive abdominal myonecrosis can present technical problems in wound closure. Prosthetics may be needed.⁴

Well-documented clinical studies failed to show any beneficial effect of antitoxin in the treatment of advancing clostridial myositis.^{3A}

Conclusion

Clostridium myonecrosis of the abdominal wall is a postoperative complication that can occur after any type of abdominal surgery. Three cases with successful management are presented.

Basic tenets of therapy are wide decompression of the wound, massive doses of antibiotics, and meticulous ventilatory, hemodynamic, and supportive care. In acute fulminant cases, hyperbaric oxygen therapy should be given concomitantly without delay. The latter adjuvant treatment effects a dramatic suppression of infection and intoxication. Subsequently, clear lines of demarcation between viable and necrotic tissue facilitate debridement of the wound.

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588 Eagle Rock Avenue

Dr. Barondess makes an eloquent plea to reemphasize the art of medicine rather than abdicate to the science of medicine, whose studies are so rapid. Educational and curriculum changes, faculty modifications, and the reduction in visible role models are discussed.

Science in Medicine: The Complications of Success*

Jeremiah A. Barondess, M.D., New York

The scientific success of recent years in medicine has been so pervasive, and its proportions so great, that we have tended to come to view it as an unalloyed good—a *summum bonum*—and have failed to identify some of the difficulties it has created. This presentation is about science in medicine, the problems it has raised, and my view that we haven't been meeting some of these problems very well.

As a non-scientist, a clinician, I have the conviction that medical science and bedside medicine are absolutely interdependent, and that science is the underlying basis, the foundation, of sound clinical effort.

Scientific Transformation of Medicine

We sometimes overlook the sweeping scientific transformation of medicine that has occurred in recent years, and the changes that have been generated by it. As recently as World War II, syphilis was still being treated with arsenicals and bismuth. During my own internship, the only drug available for the treatment of hypertension was phenobarbital; the only effective antimicrobial drugs were the sulfonamides and penicillin, and we were just beginning to use streptomycin in the treatment of tuberculosis. When we needed diuretics we had only mercurials, and I used Southey Tubes more than once in the management of severe dependent edema.

Contrast this, if you will, with the avalanche of scientific information that has lately appeared, incredibly enough, within the lifetimes of most of us. Consider the development of knowledge of the genetic code and its mode of operation, of the clarification of the functions of subcellular organelles, of the physiology of muscular contraction, the functioning

of the nephron, the discovery of cyclic AMP, of new studies on energy flow in ecosystems and on population genetics; and note that most of these are already contributing to clinical practice. Consider the development of clinical pharmacology, with the growth of a spectrum of drugs of really startling potency. Consider the unfolding of our understanding of life processes and of disease in molecular terms.

Consider, in summary, that what can be delivered now to the sick individual by the most sophisticated practitioner has been largely developed within our own lifetime by a prodigious scientific effort, largely funded by the federal government. This certainly represents the most significant contribution the government has ever made to the health of the people. The modern treatment of disease primarily reflects the recent scientific transformation of medicine, and this transformation has been the most profound and far-reaching medical event of our time. It has not only shaped and deepened our understanding of disease, but it has also re-shaped medical faculties and training programs for interns and residents in our specialty. It has modified medical practice in this country to a very marked degree, by promoting, of necessity, an increasing degree of specialization and subspecialization of knowledge, and thereby of practice as well. And out of all this, along with the enormous benefits derived from it, has evolved a set of problems we are only now beginning to see and deal with.

* Read at the New Jersey Regional Meeting, American College of Physicians, Cherry Hill, New Jersey, November 7, 1973. Dr. Barondess is Chairman, Board of Governors, the American College of Physicians, and Clinical Professor of Medicine, Cornell University Medical College.

Problems for the Patient

For the patient these problems focus heavily on the dilemma of finding his way around in subspecialty medicine, and increasing difficulty in obtaining broad care extending over long periods and many kinds of illness. All of us have seen patients being cared for by multiple physicians, each addressing his efforts to the organ system, or even the individual organ, that represents his area of interest and expertise. Not only does this sort of clinical fragmentation make for difficulties in obtaining cohesive care, but it raises formidable obstacles to the patient seeking a point of entry into the medical care system. This is especially true if his problem has not yet been categorized in such a way that he can search out an appropriate subspecialist. Viewing the care of the patient in a total sense, an accumulation of specialists and subspecialists is not an adequate substitute for a single physician, with broad clinical interests and capability, who can assume responsibility for that person's health over a long period of time and through a variety of medical events. The clinical activities of the generalist may require the support and availability of the special training of the subspecialist in relation to many clinical problems. These two physicians are mutually complementary for neither substitutes adequately for the other. Failure to clarify their relative roles, however, has produced confusion for the patient and fragmentation of care.

Problems for the Physician

For the doctor, the problems to be faced are no less trying. The effort needed to avoid, or at least delay, obsolescence is greater now than ever before, and growing each year. Meetings, annual sessions, journals, postgraduate courses, and self-assessment tests are evidence of our feeling about the specter of what has been called "the ignorance explosion," i.e., the disproportion between the mass of new material to be assimilated and our human limitations in information management.

An additional problem for physicians has been an increasing confusion in specialist versus generalist roles within internal medicine,

some aspects of which I have already touched on from the patient's point of view. Not only does this have to do with patient care, but also with our educational and training responsibilities. The trend toward increasing degrees of specialization has reduced the number of deeply trained general internists and left a serious gap in the ranks of our clinical teachers, among the spectrum of role models we offer to our students, and has made the consultant internist or "diagnostician" a vanishing breed. This is a major negative feedback of our scientific success, for, in our training programs, we reproduce ourselves or replicate with nearly as much precision as our cells do. If our students and trainees are not exposed to the deeply skilled internist/diagnostician there is no reason to hope that even a few of them will construct his example as something worth trying to emulate; thus, the number of such individuals on our faculties and in our hospitals will diminish even further in the years ahead.

Another difficulty is the growing confusion of "disease" and "illness." The definitions of these terms are important: a *disease* is a biological event of a pathologic sort. It is something that happens to a cell, or an organ, or a system, or even an entire organism. But ultimately it is a biologic process, and it is to be understood ultimately in scientific (that is objective, quantitative, reproducible) terms. An *illness*, on the other hand, is a human event; it is a grouping of discomforts, dysfunctions, and resultant personal and social dislocations, occurring in a person and reflecting the interaction of that person with a disease. It must be understood as an event in the course of the individual's life, an event which is often of great importance, but nevertheless one event among the myriad making up his life, and imbedded in a matrix of concerns, responsibilities, hopes and fears, all of importance to the patient. An illness must be understood in human terms.

Solutions: The Art and Science of Medicine

There is nothing about science that is antihuman, but there is a danger for us that our increasing ability to understand and treat disease, in terms of its basic mechanisms, will

confuse management of the *disease* with management of the *illness*. We sometimes, in our scientific approach to the disease, fail to address the illness as well. I believe this omission is responsible for a good deal of the difficulty between doctors and patients these days. We need to remind ourselves to attend to both, to deliver science and human concerns. Our patients deserve this combination in treatment and our students and house officers are poorly taught if they don't see their seniors delivering it. In centers where science in medicine receives heavy emphasis, we may become preoccupied with the biologic phenomena of disease, and may forget the degree of empathy and human support our patients require as they try to manage the facts and fears generated by illness. On the other side of the coin, we've all seen situations in which the application of available scientific insight into the management of disease was not what it should have been, although the human elements of patient care were adequately represented.

My point is that we need to guard against the dehumanization of our management of illness, and of death and dying, while we make certain that medical science is adequately represented in our treatment of the disease.

In relation to death and the dying patient, our responsibilities are especially sensitive. I met a woman whose husband had died of leukemia shortly before. She had noticed that, as he got sicker and more refractory to therapy, the visits of his doctors to his bedside became gradually briefer and more infrequent. She felt, as her husband approached the end of his illness and of response to the treatment protocol, that his physicians became less involved with him and turned his terminal care over to the nurses, students, and technicians. In other clinical situations, as the patient deteriorates and approaches death, we've all seen the accumulation around him of the signs of our technologic prowess—the monitors, the respirators, the intravenous infusions, the CVP lines, the pacemakers, the catheters, and so on. The patient in such a setting is likely to be unconscious, but his family is not. They are likely to be increas-

ingly confused and distressed, not so much by the apparatus as by the general sense of exclusion and dehumanization they feel, by the impression they may get that it is our attitude that if anything can be done for the patient, it can be done by science and technology. Our responsibility under such circumstances is to rehumanize this scene, to see to it that the physician is there too. We should not withdraw, out of our own discomforts, and send science and technology to the bedside in our place. They belong there, to be sure, but so do we.

As an initial approach to the problems I have touched, I would suggest that we need to re-recognize and re-emphasize the fundamental orientation of medicine around the sick individual, and the realization that he is more than the sum of his sick cells and disordered biological processes. We must understand that *illness*, as well as *disease*, must be treated. We must avoid the temptation to try to use science to do the whole job; science has never claimed this capacity in clinical medicine, but has too frequently had this expectation thrust on it by default. We need to evaluate the impact of recent trends in undergraduate and postgraduate medical education on total patient care and on the composition of our faculties, as well as the array of role models we are offering to our students and house officers. And finally, we must be careful not to downgrade science in medicine; it is, in a profound sense, our lifeblood. Without it, we would be deprived of our primary opportunity for expression of compassion for the sick, namely, our ability to make them well, or at least better, and we would be without our only hope to be able to do better in the future.

Our willingness to try to isolate, identify, and attack our problems is one of the great strengths of medicine. Our dilemmas are eminently respectable ones, and solutions will come if we focus our energies on the central importance of the patient in the medical transaction, and if we clarify the dual set of responsibilities we now carry by virtue of the sophisticated scientific base that has come to give direction and promise to our clinical efforts.

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NEW JERSEY DOCTORS' NOTEBOOK

Trustees' Minutes

December 16, 1973

A regular meeting of the Board of Trustees was held on December 16, 1973, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of the significant actions follows:

Exemption from Price Control Regulations . . . Approved the following recommendation:

That MSNJ register its support of the AMA petition to the Cost of Living Council seeking repeal of discriminatory price control regulations.

Chiropractic Under Medicaid . . . Approved the following recommendation, which was proposed as a consequence of notice that the Department of Institutions and Agencies proposes to adopt a manual for chiropractic services under Medicaid:

That, because of the prolixity of the proposed rule and the shortness of time, the Executive Director and Legal Counsel be authorized to review said proposal and to state MSNJ's opinion on the same in conformity with established precedent and policy.

Acupuncture . . . Directed that a press release be issued indicating that acupuncture is at present an experimental procedure which is still under investigation and evaluation as to its scientific validity. (The Society has appointed three representatives to serve on the special committee appointed by the State Board of Medical Examiners to study legislation for acupuncture, and the results of this committee's findings will be released to the public.)

Psychotherapy under Medical Practice Act . . . Tabled a recommendation from the Council on Mental Health to review the medical practice act as it concerns the practice of psychotherapy by unlicensed and unqualified persons, pending a report from the Council on a review of the section of the Medical

Practice Act dealing with this subject.

School of Professional Psychology . . . Reaffirmed the position, taken at its October 21, 1973 meeting, of supporting the concept of administrative responsibility for a School of Professional Psychology being lodged within the College of Medicine and Dentistry of New Jersey, because it has already been decided that a School of Professional Psychology will be created and, to assure appropriate and correct relationships between all individuals delivering personal health services to New Jersey citizens, the school should be located in the College of Medicine and Dentistry of New Jersey.

Note: The above decision resulted from action of the Council on Mental Health in expressing strong opposition to a school of professional psychology and concern over the implication of the endorsement of the independent practice of medicine by non-medical professionals. The Council pointed out MSNJ's official position in 1966 of opposition to a bill in the New Jersey Legislature to create a "practicing psychology licensing act," and the action of the Board of Trustees (in 1971) in approving a recommendation of the Council on Mental Health that MSNJ reaffirm its opposition to the unsupervised practice of psychiatric modalities, including psychotherapy, by persons not licensed to practice medicine. The New Jersey Psychiatric Association also expressed its displeasure at MSNJ's action of October 21st.

Foundation for Health Care Evaluation . . . Directed that a communication go to the staff presidents of all New Jersey hospitals informing them of the ramifications that might ensue if the Hospital Association is successful in its attempt to place itself in a dominant position to control peer review in New Jersey hospitals and remove physician control from hospital peer review and possible PSRO involvement, and further informing them that representatives of the Foundation are prepared to attend hospital staff meetings to discuss all aspects of the Foundation.

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Communicable Diseases in New Jersey

The following communicable diseases were reported to the Communicable Disease Control Program of the New Jersey State Health Department during December 1973.

	1973 December	1972 December
Aseptic meningitis	14	39
Primary encephalitis	2	1
Hepatitis: Total	148	196
Infectious A	71	152
Serum B	28	44
Unspecified	49	0
Malaria	0	0
Meningococcal meningitis	8	5
Mumps	75	262
German measles	12	39
Measles	188	2
Salmonella	60	38
Shigella	32	43

Measles 1973

There have been measles outbreaks in New Jersey this fall, during a season when they are not usually prominent—696 cases reported as of December 16, 1973, in contrast to 499 cases reported in 1972.

Major outbreaks have occurred in Paterson, Passaic, Saddle Brook, and Bordentown; Newark has reported a moderately high level of measles activity. The outbreaks are predominantly among pre-schoolers and older school children, two groups who may have missed immunization. Many pre-schoolers have not yet completed their immunizations prior to entrance to kindergarten. The older school children, who were already enrolled when the requirement for measles immunization was instituted in most schools, may have similarly been neglected.

One hundred and eleven cases have been reported in Paterson from September through the end of December, with the peak in mid-November. There have been 86 pre-schoolers affected, 24 school-aged children, and one adult. A very high proportion of hospitalization (23 per cent) probably reflects partially incomplete reporting of outpatient diseases.

There was one death attributable to measles in a four-year-old child. These figures illustrate the potential for serious morbidity and mortality of measles with less than optimal immunization levels. There were two mass immunization programs instituted in Paterson, which resulted in approximately 300 immunizations.

The 59 reported cases at Saddle Brook were approximately evenly divided among the high school (44 per cent) and the primary schools. The outbreak peaked in late November; there was one hospitalization. The immunization effort was directed at the high school population, where approximately 600 youngsters were immunized against measles in the first week of December.

In Bordentown, since the first of December there have been 16 cases of measles reported, all localized to the junior high school population. The extraordinarily high rate of hospitalization (5 of 16) was related to initial concern about the type of illness prior to measles being recognized in the community. An immunization program aimed at junior and senior high schools was held after the Christmas vacation.

In the last two months of 1973 there were 36 cases of measles reported in Newark, 17 pre-schoolers and 19 school-age children, with six hospitalizations. One school has already had an immunization program and the remainder of the school system is being immunized in January.

These outbreaks clearly indicate that measles is far from a disease of only historical significance. The need for careful, continual surveillance and disease reporting throughout the state cannot be overemphasized. In addition, the widespread disease is a mandate for review of immunization records of school children throughout the state in order to provide protection to the susceptibles before clinical measles is apparent in a community. Without aggressive prevention measures we can expect considerable ongoing morbidity from measles within New Jersey.

Note to Authors

A bibliography or references at the close of each article must follow the format of JAMA. Try to limit the number of citations to fifteen or less. If more are essential, they may be included (at the author's expense) with the reprints, but will not be published with the article in JMSNJ.

Therapeutic Drug Information Center

The New Jersey Regional Pharmaceutic and Therapeutic Drug Information Center is a project of the New Jersey Regional Medical Program. The Center serves as a source of intelligence on specific problems, articles, and reports concerning pharmaceutic and therapeutic information. A specialized library maintained by the Center contains complete information about U.S., foreign, investigational, and proprietary drugs, including their identification, availability, interactions, compatibility, side effects, dosage, adverse reactions, and so on.

The Center is staffed by trained pharmacists. Jack M. Rosenberg, Pharm. D., Associate Professor of Pharmacy and Director of Drug Information, Brooklyn College of Pharmacy, is Project Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College is pharmacologist consultant. The service is free, available Monday through Friday from 9 a.m. to 5 p.m.—telephone (201) 445-4900, extension 132. Below are three questions and answers handled by the Center recently.

1. What reports do you have regarding increased acid secretions in patients taking antacids containing calcium carbonate? (Well-known calcium carbonate-containing antacids are as follows: Alkets, Amitone, Bisodol, Camalox, Cremo Carbonates, Dicarbosil, Ducon, Eugel, Equilets, Gel-Kote, Glycogel, Ilomel, Krem, Marblen, Ratio, Syntrogel, Titalac, Trevidal, Tums.)

Recently the effects of a single small dose of oral calcium carbonate, 0.5 gm or 2.0 gm, on gastric acid secretion and serum gastrin concentrations were in-

vestigated in fasting subjects. The oral administration of both 2.0 gm and 0.5 gm produced an increase in gastric acid secretion; in addition, the 2.0 gm dose of antacid was associated with increased serum gastric level.^{1,2} The mechanism of calcium carbonate-induced stimulation of gastric secretion is not known.

In other studies, increased gastric acid secretion has been demonstrated in patients receiving calcium carbonate as an antacid for the management of peptic ulcer disease. Although the long-term management and/or high-dose administration of calcium carbonate increased gastric secretion, no increase was seen when aluminum-magnesium hydroxide, or magnesium hydroxide and sodium bicarbonate were used to treat patients.^{3,4}

Several questions have been proposed by Barreras⁵ concerning use of calcium carbonate that should be answered by clinical study. Should calcium carbonate be used in the management of peptic ulcer? Does this antacid delay ulcer healing? Have ulcers been labeled as intractable—in spite of or because of calcium carbonate administration?

References

¹Anonymous: *Drug Information Service Newsletter*, Alta Bates Hospital, 5:6:35 (1973)

²Levant, J. A., et al.: Stimulation of gastric secretion and gastrin release by single oral doses of calcium carbonate in man. *N Engl J Med* 289:555 (1973)

³Fordtran, J. S.: Acid rebound. *N Engl J Med* 279:900 (1968)

⁴Barreras, R. F.: Acid secretion after calcium carbonate in patients with duodenal ulcer. *N Engl J Med* 282:1402 (1970)

⁵Barreras, R. F.: The carbonate affair—is calcium indictable? *N Engl J Med* 289:587 (1973)

2. Is it safe to use anticonvulsant therapy in pregnant women?

Reports have associated the administration of anticonvulsants during pregnancy with greatly increased incidence of congenital malformations.^{1,2,3}

Common reference sources—i.e., the American Hospital Formulary Service,⁴ indicate that diphenylhydantoin (Dilantin®) should not be administered to pregnant women, to women of childbearing age who might become pregnant, or to nursing mothers unless the potential benefit to the patient outweighs the possible risk to the infant. This reference also notes that fetal abnormalities have been reported in animals receiving diphenylhydantoin.

Monson, et al.,⁵ in a retrospective study of 50,897 pregnancies, indicate that the difference in the malformation rates between children exposed regularly to diphenylhydantoin during early gestation and children born to nonepileptic mothers could reflect the teratogenic effect of the drug, of epilepsy itself, or of both factors.

Millar and Nevin⁶ studied 110 infants born to 57 epileptic mothers taking anticonvulsants and found a considerably smaller incidence of teratogenicity than had been documented or estimated in other reports. The authors conclude when anticonvulsant therapy is necessary during pregnancy withholding such drugs cannot be recommended, and on the evidence available for the individual mother with epilepsy, the risk of an abnormal baby is small.

References

- ¹Meadow, S. R.: Letter to Editor—Anticonvulsant drugs and congenital abnormalities. *Lancet* 2:1296 (Dec. 14) 1968.
- ²South, J.: Teratogenic effects of anticonvulsants. *Lancet* 2:1154 (Nov. 25) 1972.
- ³Mirkin, B. L.: Diphenylhydantoin: placental transport, fetal localization, neonatal metabolism, and possible teratogenic effects, *J Pediatr* 78:329 (Feb.) 1971.
- ⁴Anonymous: American Hospital Formulary Service, American Society of Hospital Pharmacists, Washington, D.C., 1973, p. 28:12.
- ⁵Monson, R. R., *et al.*: Diphenylhydantoin and selected congenital malformation. *N Engl J Med* 289:1049 (Nov. 15) 1973.
- ⁶Millar, J. D. H., *et al.*: Congenital malformations and anticonvulsant drugs. *Lancet* 1:328 (Feb. 1) 1973.

3. Do you have any reports of birth defects or other adverse effects associated with the use of oral contraceptives or other sex-hormone preparations during pregnancy?

The possible side-effects of progestagens regarding masculinization of the female fetus and undervirilization of the male fetus,¹ and the possible association of maternal stilbestrol (an estrogen) therapy to subsequent development of adenocarcinoma of the vagina in young women are known.²

Lately, attention has been drawn to the fact that there may be an increase in congenital abnormalities resulting from prenatal exposure to oral contraceptives (progestagen-estrogen compounds or progestagens) during vulnerable periods of embryogenesis. One such group of multiple anomalies are described by the acronym VACTERL (vertebral, anal, cardiac, tracheal, esophageal, renal, and limb).^{3,4}

A study of ten patients with VACTERL and two patients with other type defects revealed exposure at the vulnerable period of embryogenesis to a progestagen-estrogen compound or a progestagen alone in eight of these patients. These hormones were taken either as a pregnancy test or mistakenly without realizing that pregnancy already existed.⁵

A retrospective study of 224 patients with congenital heart-disease disclosed that 20 patients received progestagen-estrogen drugs at a vulnerable period of cardiogenesis, compared with 4 of 262 controls. This difference is highly significant from a statistical standpoint.

During a study of etiological factors in congenital heart-disease it was noted that 10 of 76 mothers of babies with transposition of great vessels had been treated with *some* hormone during the first trimester of pregnancy. (Six out of the ten were treated with sex-hormone preparations for threatened abortion, and one was given a pregnancy test which uses a progestational hormone.) The incidence of congenital defects in the hormone-exposed groups was statistically significant.⁶

Until there is more definitive data available, it may be prudent to emphasize the need to document the absence of pregnancy before undertaking oral contraception and to reconsider the risk-benefit ratio of pregnancy testing with hormonal agents.

References

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- ²Herbst, A. L.: Adenocarcinoma of the vagina. *N Engl J Med* 284:878 (April 22) 1971.
- ³Kaufman, R. L.: Birth defects and oral contraceptives. *Lancet* 1396 (June 16) 1973.
- ⁴Kaufman, R. L.: *et al.*: *Birth Defects* 8, No. 2, Part XIII, 85, 1972.
- ⁵Nora, J. J., *et al.*: Birth defects and oral contraceptives *Lancet* 941 (April 28) 1973.
- ⁶Levy, E. P., *et al.*: Hormone treatment during pregnancy and congenital heart defects. *Lancet* 611 (March 17) 1973.

CMDNJ Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

Dr. Krosnick's editorial, "Individual Health Education: The Role of the Physician" in the December issue of *The Journal of The Medical Society of New Jersey*, Vol. 70, No. 12 (1973), was a source of personal gratification to me and to all of us involved in the CMDNJ-RMS program in consumer health education. As Anne Somers, program director, said in her article in the same issue, "Health education is an idea whose time has come!"

That article described the program in one affiliated hospital, Monmouth Medical Center. It was based on a speech delivered in September to the medical staff of another, Morristown Memorial Hospital. Since then, we have expanded to include several additional institutions—St. Francis in Trenton, Our Lady of Lourdes in Camden, Overlook in Summit, the Phillips-Barber Health Center in Lambertville, and Shore Memorial in Somers Point.

Assistance from CMDNJ to these affiliated or contracting institutions varies from a few hundred dollars for a single project (for example an experimental nutrition conference at Overlook in March and a special two-year evaluation on the cardiac patient education

program conducted by Robert Datesman, M.D., and his colleagues at Shore Memorial) up to \$22,000 for a one-year grant to support the establishment of a full-scale department of consumer health education.

In recognition of the growth and development of this new program, I have recently appointed an Advisory Committee to assist me, Mrs. Somers, and other members of the Office of Consumer Health Education with respect to our three major objectives:

(1) Development of a statewide regional network of hospital-based health education programs, affiliated with CMDNJ;

(2) Research and development in techniques of personnel training, program development, management, financing, and evaluation of health education programs; and

(3) Development and operation of an information and resource center serving the state with health education materials, both printed and audio-visual.

We welcome Howard D. Slobobien, M.D., as representative of The Medical Society of New Jersey on the Advisory Committee.

PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

FAMILY PRACTICE—Samuel A. Greenberg, M.D., P.O. Box 434, Woodstock, New York 12498. New York Medical 1937. Emergency room of hospital. Available immediately.

Eugene J. Mlynarczyk, M.D., c/o General Delivery, Brigantine 08203. Temple 1969. Board eligible. Group. Available.

GENERAL PRACTICE—Joseph Weiss, M.D., 42-B Appletree Lane, Old Bridge 08857. St. Louis 1973. Group. Partnership or emergency room (no OB). Available July 1974.

INTERNAL MEDICINE—Alfred Munzer, M.D., 2120 Brooks Drive, Suitland, Maryland 20028. SUNY.

Downstate. 1968. Sub-specialty, pulmonary disease. Board certified. Group, partnership, or hospital. Available July 1974.

Edward A. Wroblieski, M.D., 531 Charleston Road, Mt. Laurel 08057. Jefferson 1968. Board eligible. Group, partnership, or solo. Available July 1974.

Thomas J. Cuomo, Jr., M.D., 5405 Markview Lane, Richmond, Virginia 23234. Jefferson 1969. Board certified. Group or partnership. Available August 1974.

H. Farahany, M.D., 64 East Park Street, East Orange 07017. Tehran 1965. Board certified. Solo. Available July 1974.

Esteban R. Lomnitz, M.D., 2185 Lemoine Avenue, Apt. 6K, Fort Lee 07024. Chile 1963. Board certified. Subspecialty, cardiology. Group, partnership, or hospital. Available July 1974.

Arto Mouradian, M.D., Baylor Medical Center, 3500 Gaston Avenue, Dallas, Texas 75246. Cairo 1966. Board eligible. Hospital or group. Available July 1974.

Gloria L. Perez, M.D., Baylor Medical Center, 3500 Gaston Avenue, Dallas, Texas 75246. Santo Tomas 1961. Board eligible. Subspecialty, cardiology. Group or hospital. Available July 1974.

Suresh Jain, M.D., 320 East 23rd Street, New York 10010. Lucknow (India) 1960. Board certified. Sub-specialty, gastroenterology. Group or partnership. Available July 1974.

Paul A. Hamlin, M.D., 673 Foch Boulevard, Wiliston Park, New York 11596. New York Medical 1967. Board certified. Subspecialty, pulmonary medicine. Group, partnership; also part-time teaching. Available.

M. I. Zafar, M.D., Apt. 11-D, 85 Manor Drive, Newark 07106. King Edward (India) 1968. Sub-specialty, cardiology. Group, solo, or partnership. Available July 1974.

R. N. Saxena, M.D., 1915 Beacon Street, Brookline, Massachusetts 02146. Varanasi (India) Medical College 1969. Subspecialty, gastroenterology. Group or partnership. Available July 1974.

M. E. Ali, M.D., Lung Research Center, Yale University, 333 Cedar Street, New Haven 06510. Karachi University (Pakistan) 1964. Subspecialty, pulmonary disease. Board eligible. Group or partnership. Available July 1974.

OBSTETRICS-GYNECOLOGY—Anant Ram Bhati, M.D., 506 Dixmyth Avenue, Cincinnati, Ohio 45220. Jaipur (India) 1964. Board eligible. Available 1974.

Richard J. Malafy, M.D., New Britain General Hospital, New Britain, Conn. 06050. New Jersey Medical School 1971. Group, partnership, or solo. Available July 1974.

Mei Pu Lin, M.D., 6910-D Lachlan Circle, Baltimore 21239. Kaohsiung (Taiwan) 1964. Board eligible. Group or partnership. Available July 1974.

OPHTHALMOLOGY—Enrique Ellenbogen, M.D., 420 Sand Creek Road, Apt. 510, Albany, New York 12205. Cayetano Heredia Medical (Peru) 1968. Board eligible. Association, partnership, solo. Available September 1974.

PATHOLOGY—Americo B. Anton, M.D., 1910 Columbia Pike, Apt. 7, Arlington, Virginia 22204. Trujillo (Peru) 1970. Board eligible. Group, partnership, solo, institution. Available July 1974.

PEDIATRICS—V. Balachandar, M.D., 267 North New Bridge Road, B-18, Levittown, New York 11758. Kasthuriba (India) 1966. Board certified. Subspecialty, endocrinology. Group, partnership, institution, or clinic. Available July 1974.

J. N. Pahuja, M.D., 200 Carman Ave., Apt. 8-H, East Meadow, New York 11554. Amritsar (India) 1962. Board eligible. Group, partnership, institution, clinic. Available July 1974.

PSYCHIATRY—Gary L. Portadin, M.D., 1059 Lexington Avenue, New York 10021. NYU 1970. Board eligible. Group, partnership, solo, hospital. Available July 1974.

RADIOLOGY—William J. Cosgrove, M.D., 463 Harris Drive, Watertown, New York 13601. Georgetown 1933. Board certified. Full-time or part-time with individual, group, or hospital. Available.

Robert D. Hochberg, M.D. 1600 Hagys Ford Road, Narberth, Pennsylvania 19072. Pennsylvania 1970. Board eligible. Group or partnership. Available July 1974.

SURGERY—Ratnakar R. Andalkar, M.D., 11 Amherst Street, Biddeford, Maine 07005. Manglore (India) 1968. Solo, partnership, or group. Available July 1974.

S. H. Green, M.D. 6938 Post Street, Edwards, California 93523. NYU 1966. Board certified. Solo, partnership, association in Northern New Jersey. Available August 1974.

Tae Soo Kim, M.D., 660 East 98th Street, Apt. 5-J, Brooklyn, New York 11236. Catholic Medical College 1966. Group, partnership, solo, emergency room. Available July 1974.

Harvey L. Green, M.D., 15 Treaty Road, Drexel Hill, Pennsylvania 19026. Temple 1966. Subspecialty, vascular surgery. Board eligible. Group, partnership, clinic. Available July 1974.

K. G. Khalil, M.D., 2406 Bristol Road, Columbus, Ohio 43221. Cairo University 1961. Subspecialty, thoracic surgery. Board eligible. Group, partnership. Available July 1974.

Peter J. Periconi, M.D., 200 Carman Ave., Apt. 10-B, East Meadow, New York 11554. Hahnemann 1969. Subspecialty, vascular surgery. Board eligible. Group or associate. Available July 1974.

Kung-Ho Liu, M.D., 222 East 19th Street, New York 10003. Taiwan 1964. Board eligible. Group or partnership. Available July 1974.

THORACIC SURGERY—Jack Lee, M.D., 860 Harrison Avenue, Apt. 805, Boston, Massachusetts 02118. New York Medical 1965. Board eligible. Group or partnership. Available January 1975.

UROLOGY—Harris D. Slavock, M.D., 15 Merion Lane, Willingboro 08046. Northwestern 1969. Board eligible. Group, partnership, or association. Available June 1974.

TV Adult Health Series

An experimental approach to the health education of young adults has been funded by the Robert Wood Johnson Foundation, Edna McConnell Clark Foundation, Commonwealth Fund, John and Mary R. Markle Foundation, Van Ameringen Foundation, Ittleson Family Foundation, the Grant Foundation, the Corporation for Public Broadcasting, Aetna Life and Casualty Company, and Exxon Corporation. Budgeted through its first season at \$7 million for research, development, and production, the prime-time TV series was conceived by the Children's Television Workshop, creators of "Sesame Street." The Children's Television Workshop is a non-profit research and development laboratory, founded to experiment in the educational use of television.

The target audience will be young parents and the over-all objective is "to get people to improve the level of their own health and that of their family." Since health status is closely related to lifestyle, it is felt that the individual has a great opportunity to maintain his own health and to prevent illness. Among the topics covered will be an exploration of the nation's health delivery system, means of gaining access to the system, and a broad range of subjects from prenatal care to death. These will include adolescent health problems, modification of personal habits (smoking, abuse of alcohol, drugs, and food), chronic diseases, and family planning.

The project, which will be viewed in one-hour segments for 26 weeks, will begin in the fall of 1974. The techniques used incorporate animated cartoons, live-action documentary film, drama, song and dance sketches, and comedy and satire skits.

The long-range plan is to organize follow-up community oriented projects through local health agencies and neighborhood groups, utilizing such promotional and educational materials as printed program guides, instructional posters, and other special publications aimed at the extensive inner-city audiences.

National Library of Medicine

The National Library of Medicine (NLM), founded in 1836, is located on the "campus" of the National Institutes of Health in Bethesda, Maryland. Housed in beautiful new buildings, NLM "assists in the advancement of medicine and health-related sciences through the collection, dissemination, and exchange of the world's biomedical literature." Its Director, Martin M. Cummings, M.D., and his staff oversee the library's collection of nearly a million and a half books, journals, monographs, theses, pamphlets, reels of microfilm, portraits, and illustrations. NLM's computer-based Medical Literature Analysis and Retrieval System (MEDLARS) provides references to the biomedical literature for researchers, clinicians, and other health professionals.

NLM's most important publication, *Index Medicus*, has been published since 1879. Each monthly issue references approximately 20,000 journal articles under one or more of 7,500 index terms, as well as the author's name. The citations come from over 2,200 of the 18,000 biomedical journals which the library regularly receives. *Cumulated Index Medicus* is the annual cumulation of the references and index terms. *Monthly Bibliography of Medical Reviews* and *Abridged Index Medicus* are other bibliographic publications.

MEDLINE (MEDLARS On-Line) provides almost instantaneous access to a large part of the MEDLARS data base, through its computer—IBM 370/155—(a nationwide communications network) and participating medical libraries. The communications network consists of a regular telephone and a data communications terminal which, when activated, records the data. To reduce long-distance charges, the user may dial a number in the nearest of 35 major cities, from which the call is shunted to the NLM computer. Libraries in medical schools, major research institutions and larger hospitals may participate in MEDLINE through a contract negotiated with NLM.

Another NLM program is its National Medical Audiovisual Center (NMAC) in Atlanta, Georgia. NMAC functions include (1) acquisition and distribution of films and other audiovisual resource materials; (2) reference and research services; (3) consultation, encouragement, and assistance in the development and use of materials; and (4) audiovisual training and experimental production.

The Toxicology Information Program (TIP) includes the publication of *Toxicity Bibliography*, *Drug Interactions*, *Toxicology Vocabulary*, and *Abstracts on the Health Effects of Environmental Pollutants*. TIP also operates a *Toxicology Information Response Center* (TIRC) at Oak Ridge, Tennessee, which performs literature searches in various subfields of toxicology. TIP also brings information and data services to the user's community through an on-line interactive retrieval system called TOXICON (Toxicology Information Conversational On-line Network). The objective of this system is to provide scientists and health professionals with toxicology information, by interacting directly with the data store through computer terminals.

Finally, the Lister Hill National Center for Biomedical Communications is the entity of NLM whose objectives are to "(1) speed the flow of new knowledge to application so as to rapidly improve medical care; (2) apply communications' technology to undergraduate and graduate medical education; (3) offer better communications; (4) facilitate the development of new knowledge; and (5) improve the understanding of the public with respect to healthful living and preventive medicine."

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macteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be dis-

continued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and anorchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg. Postpuberal cryptorchism, 30 mg. **HOW SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250.

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CLINICAL NOTES

An Oral Electrolyte Solution

Robert G. Kerdasha, M.D./Hackensack

I am a pediatrician and a tennis player, and have been using an oral electrolyte solution for over four years as a thirst quencher, especially during heavy physical exertion. This liquid is available in lime or orange flavor and is packaged in 32 ounce bottles. It supplies approximately five calories per ounce and consists of sodium and potassium chloride, sodium and potassium orthophosphate, sodium citrate, glucose, and flavorings with the following milli-equivalents per liter: sodium—21.0 meq./liter; potassium 2.5 meq./liter; chloride—17.0 meq./liter; and phosphate 6.8 meq./liter.

I was concerned about the physiological effects on tennis players, especially whether this solution would enable them to play for longer periods of time with less fatigue and without muscle cramps. I have now begun to find medical uses for this product. My family has been drinking the solution, and, during febrile illnesses, has used it for purposes of hydration. I discovered that antibiotics, such as penicillin, erythromycin, tetracyclines, and

ampicillin, which may cause diarrhea and severe abdominal cramps in children and adults, do not have these side effects, if the patient takes the medication with a glass of the solution.

I subsequently began using it in mild to moderate diarrhea with or without vomiting in both young and older infants. One child, nine months old, was given the solution while awaiting an electrolyte report in the hospital. The report finally showed hypernatremia (sodium 160 meq./liter); during the interval the child drank enough of the solution to reduce the sodium to 145 meq./liter without any adverse effects.

The fluid has been added to the dietary list of clear fluids at Hackensack Hospital and many of my colleagues have confirmed my findings even though they are uncontrolled.

Readers are cautioned that the solution is not to be used in hypernatremia and other conditions requiring intravenous therapy. It is accepted well by most people and it does not have the shortcomings of some other oral electrolyte solutions and powders.

Shigella Flexneri 3 Infection in Woodbridge State School

Jacyntho A. DaSilva, M.D. and
Manuel M. Villaverde, M.D./Woodbridge*

An outbreak of Shigellosis at Woodbridge State School, an institution for the mentally retarded, involved 53 residents who were asymptomatic or had mild symptoms. Four patients had diarrhea without fever, five had fever without diarrhea, and 23 patients had both fever and diarrhea; 21 were asymptomatic. When gastrointestinal infection was suspected, rectal swabs were collected for cul-

ture; contacts in the same cottage and employees were tested routinely. Cottages where positive cases were detected were quarantined and rectal swabs for culture were taken on all residents and employees. Water, milk, and other foods were checked with negative results. Symptoms lasted only one day in the majority of patients and none was symptomatic longer than five days. The appearance of cases over a three to four week period, with sequential spread from building to building, suggested transmission from person to person.

*Dr. DaSilva is Medical Director and Dr. Villaverde is staff physician at the facility.

Laboratory studies were made on 206 residents and 800 employees. *S. flexneri* 3 was cultured in 52 residents and *S. sonnei* in one case, while only four of the employees had positive cultures. Only nine of the patients had leukocytosis and six of these were febrile.

Treatment consisted of isolation (until two consecutive negative cultures were obtained), symptomatic treatment, and specific therapy. The majority of the patients were treated with ampicillin, which was started on symptomatic patients as soon as the first rectal swab was taken and when a positive culture report was received on asymptomatic residents. The dose of ampicillin was 500 mg. every six hours for an average of seven days. Doses were modified for pediatric patients to 100 mg. per kilogram of body weight per day. The alternative antibiotic was tetracycline, 500 mg. every six hours, or 40-50 mg. per kilogram per day for seven days. Ampicillin proved effective in 38 of the 50 cases treated.

Comment: Like Shigellosis elsewhere, the

outbreak in our population produced very few or no symptoms in the majority of patients. Unlike the general experience in the United States, where *S. sonnei* is the usual organism, *S. flexneri* 3 was responsible here. We also found a large number of carriers and noted antibiotic resistance, as did others. In an institution for the mentally retarded, suspicion of Shigellosis must be aroused by minor symptoms. Furthermore, our experience taught us the value of the routine rectal swabs for *Shigella* and *Salmonella*, so this procedure is now done on all new admissions and all new employees.

Inasmuch as the carrier state seems to be self-limited and most patients were asymptomatic or had minor symptoms, it appears that a conservative approach to treatment can be justified, in order to reduce the high frequency of resistant strains. Antibiotics should be reserved for selected, more severely affected patients, while isolation until negative cultures are obtained is adequate for asymptomatic patients or carriers.

Life Outside These United States: Convulsions During Pregnancy

James R. Wiant, M.D., St. Louis*

While working as a volunteer physician in Vietnam, I had charge of obstetrics at the provincial hospital in Quang Tri. One day when I returned from lunch, I was informed by my interpreter that I was wanted in the "labor room" to see a patient who was convulsing. I learned the patient had been "seizuring" since 2 a.m. and was in full-blown eclampsia.

As I was about to leave after initiating treatment, the interpreter returned and informed me that there were two other patients who were convulsing. The second patient was an epileptic who was five months pregnant and

was having increasing frequency of convulsions during her pregnancy. The third patient who had been admitted to the "labor room" was six weeks postpartum. She had been convulsing, had nuchal rigidity, and was febrile. The spinal fluid was purulent and she had a bacterial meningitis.

Comment: We have been taught to think of the differential diagnosis when we are presented with a symptom. How often are we lucky enough to have the differential diagnosis paraded in front of us?

The fetus of the eclamptic was stillborn, and all three patients survived.

*Dr. Wiant is presently Instructor in Medicine at Washington University School of Medicine in St. Louis.

ANNOUNCEMENTS

Graduate Lectures in Surgery

The following programs have been announced for the 1973-1974 "Distinguished Lecture Series" offered by the Department of Surgery of the New Jersey Medical School, CMDNJ:

- | | |
|-------------|---|
| February 11 | Metastatic Tumors of the Lung
Paul C. Adkins, M.D., Chairman
Department of Surgery
George Washington University School of Medicine |
| March 22 | Dissecting Aneurysm
Charles A. Hufnagel, M.D.
Department of Surgery
Georgetown University School of Medicine |
| April 15 | Surgery in Ulcerative Colitis
Ward O. Griffen, Jr., M.D.
Department of Surgery
University of Kentucky College of Medicine |

Lectures are held at 4 p.m. in the amphitheater, 2nd floor, Martland Hospital, Newark. There is no charge. Guarded parking is available in parking lot M, 12th and Bergen Streets. For further information, please write to Eric J. Lazaro, M.D., Professor of Surgery, Martland Hospital Unit, CMDNJ, 65 Bergen Street, Newark 07107.

Graduate Courses in Medicine

The following schedule, in the series, "Advances in Medicine," has been announced by the Bergen Pines County Hospital, Paramus. Sessions are held in the hospital auditorium from 9:30 to 11 a.m. on the Wednesdays indicated and collation is offered at 9 o'clock. For further information write to the Office of Medical Education, Bergen Pines County Hospital, Paramus 07652.

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| February 13 | Headache |
| February 20 | Clinical Pathology Conference |
| February 27 | Unusual Causes of Heart Failure |
| March 6 | Environmental Cancer in Year 2000 |
| March 13 | Transcultural Psychiatry |
| March 20 | Medical Aspects of Space Travel |
| March 27 | Medical-Surgical Cardiology Conference |

Psychiatric Training Programs

At 9:30 a.m., on the Wednesdays indicated, the Saint Barnabas Medical Center in Livingston will present the following in a series of psychiatric training courses. This is part of a two-year program for psychiatrists, other physicians, psychologists, social workers, and professionals in allied fields. Appropriate credit will be allowed, as determined by MSNJ. Inquiries should be addressed to the Department of Psychiatry, Attention of Miss Hoffman, Saint Barnabas Medical Center, Livingston 07039.

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| February 13 | Psychodynamic Models and Development |
| February 27 | Contributions of Biological Psychological, Sociocultural, Statistical, and Experimental Science |
| March 13 | History of Psychiatry |
| March 27 | Schizophrenia—clinical descriptions |
| April 10 | Schizophrenia—etiology, newer concepts |
| April 24 | Affective Psychoses |
| May 1 | Involutional Psychotic Reaction |
| May 15 | Depression |
| May 29 | Paranoia |
| June 12 | Psychoneuroses |
| June 26 | Psychoneuroses |

Psychiatric Graduate Programs

Fair Oaks Hospital in Summit, in cooperation with the Academy of Medicine of New Jersey, has arranged the following programs in the series, "Current Topics in Psychiatry:"

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| February 6 | Headaches
John R. Graham, M.D. |
| February 20 | Electro-Convulsive Therapy
Richard Abrams, M.D. |
| March 6 | Schizophrenia—development and diagnosis |
| March 20 | Schizophrenia—etiological theories |
| April 3 | Schizophrenia—treatment and prognosis |

Sessions are held from 3 to 4:30 p.m. (Wednesdays) at the hospital, 19 Prospect Street, Summit. Further information may be obtained from Granville L. Jones, M.D., Director of Research and Education.

Department of Surgery Lecture at Rutgers

On March 9, 1974, at 9:30 a.m., the Department of Surgery of Rutgers Medical School, CMDNJ, will present a lecture on "Hyperalimentation" by Jonathan Rhodes, M.D., Professor of Surgery, University of Pennsylvania. For further information, please write to John H. Landor, M.D., Professor and Chief of the Division of General Surgery, Rutgers Medical School, CMDNJ, Piscataway 08854.

Graduate Course in Surgery

From March 25 through 29, 1974, a graduate course in recent advances in general surgery will be offered by the College of Physicians and Surgeons, Columbia University. The sessions run from 9 a.m. to 3:30 p.m. each day and are open to physicians who have completed their training or who are in surgical residency. Emphasis will be on recent advances in the diagnosis and treatment of common surgical problems. There will be panel discussions, symposia with audience participation, and guest speakers. Some of the subjects to be covered are carcinoma of the colon-rectum, breast carcinoma, surgically correctable hypertension, emergencies in the newborn, parathyroid surgery, vascular surgery, respiratory problems in pre- and postoperative periods, renal transplants, hand surgery, cardiac surgery, trauma, and shock. Further information is available from the Associate Dean of the College, 630 West 168th Street, New York 10032.

Mental Health Conference

The AMA Council on Mental Health and the mental health committees of the Florida, Georgia, Kentucky, North Carolina, South Carolina, and Tennessee Medical Associations are joint sponsors of a regional mental health conference in Atlanta, Georgia, April 5 and 6, 1974. There will be plenary presentations on the public and private sector of mental health care in the future; formal lectures (followed by a question and answer period) on (1) PSRO and mental health,

(2) health insurance coverage for psychiatric illness, (3) service of state and local facilities, and (4) therapeutic trends; and an address by a spokesman from government. Those attending will be eligible for eight hours of category I credit. Registration is \$25 and includes luncheon. For further information, please write to the AMA Department of Mental Health, 535 North Dearborn Street, Chicago, Illinois 60610.

Congress of Ophthalmic and Otolaryngic Plastic Surgery

South Africa, Victoria Falls, and Paris will be the scene, and May 16 to June 1, 1974 are the dates of the sixth international congress on ophthalmic and otolaryngic plastic surgery. Scientific sessions will be held in Johannesburg, South Africa, and in Paris, where physicians may also attend the international congress of ophthalmology and demonstrations of operative plastic surgical techniques. Arrangements have been made for a "package" which includes air transportation, hotel accommodations, and sightseeing, in addition to participation in the congress. The cost is \$1195 and a \$250 deposit is required for reservation. The program is being organized by International Professional Meeting Coordinators, 49 West 57th Street, New York 10019. Locally, information is available from Ralph L. Dicker, M.D., 395 West Blackwell Street, Dover 07801.

Course in Ultrasonic Tomography

Columbia University College of Physicians and Surgeons will offer a graduate course in ultrasonic tomography of the eye and orbit, June 7 and 8, 1974. The course will be devoted to the explanation and demonstration of ophthalmic diagnostic techniques using combined A and B scan methodology as developed at the Harkness Eye Institute. Fourteen credit hours in category I will be awarded by the AMA for those attending. Fee is \$150 (residents, \$100). For further information, please write to J. M. Ferrer, Jr., M.D., Associate Dean, 630 West 168th Street, New York 10032.

MEETINGS OF MEDICAL INTEREST

- 1974
February
- 11 Management of Metastatic Tumors of the Lung
4 p.m.—Martland Hospital, Newark
(Sponsored by CMDNJ and Academy of Medicine of New Jersey)
 - 12 Hemodynamic Changes Associated with Aging
4-5 p.m.—CMDNJ, Newark
 - 12 Clinical Cardiology in Aged
5-6 p.m.—CMDNJ, Newark
 - 19 Electrocardiography and other Diagnostic Procedures in Aged
4-6 p.m.—CMDNJ, Newark
 - 26 Gastrointestinal Changes in Aging
4-5 p.m.—CMDNJ, Newark
 - 26 Nutritional Aspects in Gerontology
5-6 p.m.—CMDNJ, Newark
(Sponsored by CMDNJ, AAFP, and Academy of Medicine of New Jersey)
 - 12 Diagnosis and Treatment of Hypertension
9 p.m.—Bayonne Hospital, Bayonne
(Sponsored by AAFP and Academy of Medicine of New Jersey)
 - 12 Use and/or Abuse of Antibiotic Therapy in Dermatological Problems
8 p.m.—Mountainside Hospital, Montclair
(Sponsored by New Jersey Dermatological Society and Academy of Medicine of New Jersey)
 - 13 Fate of Internship
1 p.m.—Rutgers Medical School, Piscataway
(Sponsored by Association of Hospital Directors of Medical Education and Academy of Medicine)
 - 13 Perspectives in Diabetes
 - 20 Trends in Hyperalimentation
 - 27 Biological Role of the Lymphocyte
9-11 a.m.—Middlesex General, New Brunswick
(Sponsored by Middlesex Hospital, AAFP, and Academy of Medicine of New Jersey)
 - 13 Thyroid Function and Thyroid Function Studies
 - 20 Use of Hormones in Office Gynecologic Practice
 - 27 Current Management of Diabetes
11 a.m.-12 noon—Our Lady of Lourdes Hospital, Camden
(Sponsored by the Academy of Medicine of New Jersey)
 - 13 Infectious Diseases—1974
 - 20 Infectious Diseases—1974
 - 27 Infectious Diseases—1974
11 a.m.—Jersey City Medical Center
(Sponsored by Jersey City Medical Center and Academy of Medicine)
 - 15 Acid Base Balance
9 a.m.—St. Francis Hospital, Trenton
(Sponsored by the Academy of Medicine of New Jersey)
 - 15 Treatment of Non-Operable Solid Tumors
 - 11 a.m.—Perth Amboy General Hospital, Perth Amboy
(Sponsored by AAFP and Academy of Medicine of New Jersey)
 - 18 Medical-Legal Aspects of Medicine and Surgery
1 p.m.—Ancora Psychiatric Hospital, Hammonton
(Sponsored by Academy of Medicine of New Jersey)
 - 20 Acupuncture
11:30 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Academy of Medicine of New Jersey)
 - 20 An Approach to the Patient with Diminished Resistance to Pulmonary Infection
11:30 a.m.—Veteran's Administration Hospital, East Orange
(Sponsored by Pulmonary Disease Section, CMDNJ, and Academy of Medicine)
 - 21 Laboratory Interpretations
8:30 a.m.—Englewood Hospital, Englewood
(Sponsored by AAFP and Academy of Medicine of New Jersey)
 - 26 Diagnosis in Anemic Patient
8 p.m.—Warren Hospital, Phillipsburg
(Sponsored by AAFP and Academy of Medicine of New Jersey)
 - 27 New Techniques in Chest Disease
9 a.m. (all day)—Hoffman-La Roche Auditorium, Nutley
(Sponsored by New Jersey Thoracic Society and ACCP)
 - 28 Tumors of the Small Bowel
7:15-10:15 p.m.—Hospital Center at Orange
(Sponsored by Radiological Society of New Jersey and Academy of Medicine of New Jersey)
- March
- 5 Regressive Changes of Oral Cavity in Aged
4-6 p.m.—CMDNJ, Newark
 - 12 Effects of Aging on the Endocrine System
4-5 p.m.—CMDNJ, Newark
 - 12 Reproduction Changes in Senility
5-6 p.m.—CMDNJ, Newark
 - 19 Musculo-Skeletal Changes and Rehabilitation in the Aged
4-6 p.m.—CMDNJ, Newark
 - 26 Dermatological Changes in Old Age
4-6 p.m.—CMDNJ, Newark
(Sponsored by CMDNJ, AAFP, and Academy of Medicine of New Jersey)
 - 6 Laboratory Procedures in Allergy
10 a.m.—Babies Hospital, Newark
(Sponsored by New Jersey Allergy Society and Academy of Medicine)
 - 6 Fate of Internship
1 p.m.—Rutgers Medical School, Piscataway
(Sponsored by Association of Hospital Directors of Medical Education and Academy of Medicine)

- 6 Paraneoplastic Syndromes
13 Neurological Complications of Systemic Cancer
20 Metabolic Bone Disease
27 Untoward Effects of Long-Term Steroid Therapy
9-11 a.m.—Middlesex General Hospital, New Brunswick
(Sponsored by Academy of Medicine, Middlesex Hospital, and AAFP)
- 6 Advances in Diabetes Mellitus
13 Advances in Thyroid Disease
20 Disorders of Pituitary Adrenal Axis
27 New Concepts in Allergic Disorders
8-9:15 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Academy of Medicine of New Jersey and Helene Fuld Hospital)
- 6 Differential Diagnosis of Arthritis
13 Pulmonary Function Studies
20 Allergic Emergencies
27 Acupuncture
11 a.m.—Our Lady of Lourdes Hospital, Camden
(Sponsored by the Academy of Medicine of New Jersey and Our Lady of Lourdes Hospital)
- 10- Annual Meeting
13 New Jersey Chapter, American Academy of Family Practice, Cherry Hill Inn, Cherry Hill
- 12 Medical Care in Emergency Room
9 a.m.—Bayonne Hospital, Bayonne
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 12 Host Defenses in Malignant Melanoma
8 p.m.—Barnert Memorial Hospital, Paterson
(Sponsored by New Jersey Dermatological Society and Academy of Medicine of New Jersey)
- 13 Management of Renal Failure
1:30 p.m.—John E. Rannels Hospital, Berkeley Heights
(Sponsored by Academy of Medicine of New Jersey)
- 13 Infectious Diseases
Hunterdon Medical Center, Flemington
(Sponsored by Academy of Medicine of New Jersey)
- 18 Electrolyte Imbalance
1:00 p.m.—Ancora Psychiatric Hospital, Hammonton
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 20 Immunotherapy with BCG
11:30 a.m.—Veteran's Administration Hospital, East Orange
(Sponsored by Pulmonary Disease Section, CMDNJ, and Academy of Medicine)
- 20 Diabetes
11 a.m.—St. Joseph's Hospital, Paterson
(Sponsored by St. Joseph's Medical Center and Academy of Medicine)
- 20 Drug Addiction
1 p.m.—Trenton Psychiatric Hospital, Trenton
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 21 Renal Disease
1-5 p.m.—Jersey City Medical Center
(Sponsored by Jersey City Medical Center, Nephrology Society of New Jersey, New Jersey Chapter AAFP, and Academy of Medicine of New Jersey)
- 21 Therapy Sessions
Pascack Valley Hospital, Westwood
(Sponsored by New Jersey Radiological Society and Academy of Medicine of New Jersey)
- 21 Proper Use of Antibiotics
8:30 a.m.—Englewood Hospital, Englewood
(Sponsored by Academy of Medicine of New Jersey)
- 24 Problems in Obstetrics and Gynecology
New Jersey Medical School, Newark
(Sponsored by CMDNJ)
- 26 Diagnosis in Neurology and Neurosurgery
8 p.m.—Warren Hospital, Phillipsburg
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 27 Nurses' Education Program
Holiday Inn, Jersey City
(Sponsored by American Heart Association of Hudson County and Academy of Medicine of New Jersey)
- 28 Lumbar Spondylosis
7:15-10:15 p.m.—Hospital Center at Orange
(Sponsored by the New Jersey Radiological Society and Academy of Medicine of New Jersey)
- April
- 2 Body Fluids and Electrolyte Balance in the Aged
4-5 p.m.—CMDNJ, Newark
- 2 Renal Function in the Aged
5-6 p.m.—CMDNJ, Newark
- 9 Changes in Pulmonary Function with Age
4-5 p.m.—CMDNJ, Newark
- 9 Effect of Aging on Drug Response
5-6 p.m.—CMDNJ, Newark
- 16 Response of Aged to Anesthetic Procedures
4-5 p.m.—CMDNJ, Newark
- 16 Response of Aged to Operative Stress
5-6 p.m.—CMDNJ, Newark
- 23 Neurological Changes During Senility
4-5 p.m.—CMDNJ, Newark
- 23 The Aging Eye
5-6 p.m.—CMDNJ, Newark
- 23 Psychiatric Problems of the Aged
4-6 p.m.—CMDNJ, Newark
(Sponsored by CMDNJ, AAFP, and Academy of Medicine of New Jersey)
- 3 Regional Meeting
New Jersey Gastroenterological Society, Martland Hospital, Newark
- 3 Practical Eye Care in Family Practice
- 10 Gynecological Problems
- 17 Emergencies of Pregnancy and Labor
- 24 Pulmonary Function Testing
9-11 a.m.—Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex Hospital, AAFP, and Academy of Medicine of New Jersey)
- 3 Skin Manifestations of Systemic Disease
- 17 Diagnosis and Treatment of Joint Disease
- 24 Hematological Manifestations of Systemic Dis.
8-9:15 a.m.—Helene Fuld Hospital, Trenton

(Sponsored by Helene Fuld Hospital and Academy of Medicine of New Jersey)

- 3 **Dialysis vs. Renal Transplant**
- 10 **Surgical Pathology-Radiology**
11 a.m.-12 noon—Our Lady of Lourdes Hospital, Camden
(Sponsored by Academy of Medicine of New Jersey and Our Lady of Lourdes Hospital)
- 4 **New Developments in Scanning**
11:30 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Academy of Medicine of New Jersey and Helene Fuld Hospital)
- 5 **Diagnosis of Renal Diseases**
9 a.m.—St. Francis Hospital, Trenton
(Sponsored by Academy of Medicine of New Jersey)
- 9 **Diagnosis of the Anemic Patient**
9 p.m.—Bayonne Hospital, Bayonne
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 10 **Acupuncture**
1:30 p.m.—John E. Runnells Hospital, Berkeley Heights
(Sponsored by Academy of Medicine of New Jersey)
- 15 **Alcoholism**
Ancora Psychiatric Hospital, Hammonton
(Sponsored by Academy of Medicine of New Jersey)
- 17 **Clinical Symposia—Series VIII: Hypertension**
10 a.m.-5 p.m.—St. Joseph's Medical Center, Paterson
(Sponsored by Academy of Medicine of New Jersey and St. Joseph's Hospital)
- 17 **Fertility—Annual Burpeau Award**
6:30 p.m. (dinner)—Rod's 1920 Roadhouse, West Orange
(Sponsored by Academy of Medicine of New Jersey, Urology Section)
- 17 **Management of Respiratory Failure**
11:30 a.m.—Veteran's Administration Hospital, East Orange
(Sponsored by CMDNJ Pulmonary Disease Section and Academy of Medicine of New Jersey)
- 18 **Bleeding Diseases**
8:30 a.m.—Englewood Hospital, Englewood
(Sponsored by Academy of Medicine of New Jersey)
- 23 **Differential Diagnosis of Arthritis**
8 p.m.—Warren Hospital, Phillipsburg
(Sponsored by Academy of Medicine of New Jersey)
- 25 **Total Body Scanning**
7:15-10:15 p.m.—Hospital Center at Orange
(Sponsored by New Jersey Radiological Society and Academy of Medicine of New Jersey)

May

- 1 **Fate of Internship**
1 p.m.—Rutgers Medical School, Piscataway
(Sponsored by Association of Hospital Directors of Medical Education and Academy of Medicine)

- 1 **Environmental Cancer in the Year 2000**
- 8 **Unusual Causes of Heart Failure and Their Management**
- 15 **Hemorrhagic Septic Shock**
- 22 **New Development in Infectious Diseases**
- 29 **ENT in Office Practice**
9-11 a.m.—Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex Hospital, AAFP, and Academy of Medicine of New Jersey)
- 1 **Coagulation Defects**
- 22 **Eye Manifestations of Systemic Diseases**
- 29 **Early Recognition of Brain Tumors**
8-9:15 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Helene Fuld Hospital and Academy of Medicine of New Jersey)
- 3 **Differential Diagnosis of Jaundice**
9 a.m.—St. Francis Hospital, Trenton
(Sponsored by Academy of Medicine of New Jersey)
- 7 **Annual Dinner Meeting**
Chanticleer Restaurant, Millburn
New Jersey Dermatological Society
- 11- **Annual Meeting**
- 14 **Atlantic City, New Jersey**
The Medical Society of New Jersey
- 14 **Proper Use of Antibiotics**
9 p.m.—Bayonne Hospital, Bayonne
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 15 **Transfer Factor and Its Use in Bacterial and Fungal Infection**
11:30 a.m.—Veteran's Administration Hospital, East Orange
(Sponsored by CMDNJ Pulmonary Disease Section and Academy of Medicine of New Jersey)
- 15 **Blood Gases**
11:30 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 16 **Therapy Sessions**
Pascack Valley Hospital, Westwood
(Sponsored by New Jersey Radiological Society and Academy of Medicine of New Jersey)
- 17 **Clinical Endocrinology**
11 a.m.—Perth Amboy General Hospital, Perth Amboy
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 21- **Mid-Atlantic Health Assembly**
- 23 **Atlantic City**
- 22 **Psychiatry-Suicide**
1 p.m.—Trenton Psychiatric Hospital, Trenton
(Sponsored by Academy of Medicine of New Jersey)
- 23 **Arthrography**
7:15-10:15 p.m.—Hospital Center at Orange
(Sponsored by New Jersey Radiological Society and Academy of Medicine of New Jersey)
- 24 **Management of the Fetus at Rest**
CMDNJ—New Jersey Medical School, Newark
(Sponsored by New Jersey Medical School and Academy of Medicine of New Jersey)

29 **The Problem Fetus**
CMDNJ—New Jersey Medical School, Newark
(Sponsored by New Jersey Medical School and
Academy of Medicine of New Jersey)

29 **Annual Awards Dinner**
6:30 p.m.—Chanticleer Restaurant, Millburn
Academy of Medicine of New Jersey

June

5 **Spinal Cord Lesions**
19 **Stroke Syndrome**
8-9:15 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Helene Fuld Hospital and
Academy of Medicine of New Jersey)

5 **Stress and the Gastrointestinal Tract**
2-5 p.m.—Roche Laboratories, Nutley
(Sponsored by Academy of Medicine of New
Jersey)

11 **Medical-Legal Aspects of Medicine in Surgery**
9 p.m.—Bayonne Hospital, Bayonne
(Sponsored by AAFP and Academy of Medicine
of New Jersey)

17 **Diagnosis in Neurology and Neurosurgery**
1 p.m.—Ancora Psychiatric Hospital, Hammonton
(Sponsored by AAFP and Academy of Medicine
of New Jersey)

OBITUARIES

Dr. Vincent H. Gillson

On December 19, 1973, Vincent H. Gillson, M.D., the Director of Pathology at Pascack Valley Hospital in Westwood, died, at the untimely age of 52. Dr. Gillson was a 1947 graduate of the Long Island College of Medicine and completed a residency in pathology at Kings County Hospital in Brooklyn. He was board certified in that specialty, and was a Fellow of the American College of Pathologists and of the American College of Clinical Pathologists. He had been associated previously with the Bergen Pines Hospital in Paramus and the Valley Hospital in Ridgewood. Dr. Gillson also had been medical director of the Bergen Community Blood Bank program, and director of cytopathology for the Paterson Board of Health.

Dr. Floyd D. Gindhart

One of Mercer County's former members, Floyd D. Gindhart, M.D., died suddenly on December 9, 1973, in Sun City, Arizona, at the age of 66. He was graduated from New York Medical College, class of 1933, and also held a law degree from Fordham University. Dr. Gindhart had practiced obstetrics and gynecology in Trenton for 25 years, prior to his moving to Arizona in 1969. He had been associated with Helene Fuld Hospital in his specialties and had also served as instructor in

surgery and anatomy at New York Medical College. He was one of the founding fellows of the American College of Obstetrics and Gynecology and a member of the International College of Surgeons and the American Society of Abdominal Surgeons. Dr. Gindhart had been active in civic affairs in his home community, having served as Trenton City Health Officer from 1946 to 1951.

Dr. David A. Gitterman

One of Bergen County's well-known general practitioners, David A. Gitterman, M.D., died on December 19, 1973. He received his medical education in Austria and was graduated from the University of Vienna Medical School in 1936. Dr. Gitterman returned to his home state and interned at Englewood Hospital, Englewood, and remained in that area to establish a practice. He was a member of the American Academy of Family Practice and was on the attending staff at Englewood Hospital. Dr. Gitterman was 64 years old at the time of his death.

Dr. Erwin W. Reid

Word has just been received of the death, in Lake Worth, Florida, on April 28, 1973, of one of Bergen County's senior emeritus members, Edwin W. Reid, M.D., formerly of Garfield. Born in 1887, Dr. Reid was graduated from the medical school of the University of Vermont in 1913 and practiced in the Garfield area until retirement to Florida in 1955.

BOOK REVIEWS

The Diabetic Foot. Edited by Marvin E. Levin, M.D. and Lawrence W. O'Neal, M.D. Saint Louis, Mosby, 1973. Pp. 262. Illustrations 249. (\$25.50)

This book might more accurately have been labeled the "*Diabetic Lower Extremity*" as it discusses not only the foot, but the effect of diabetes on the entire lower extremity.

It is a fine symposium dealing with the subject in depth. It details very little that is new, but it is a good review by several authors, each one covering a separate topic. There is an excellent first chapter on the medical evaluation and pathophysiology of diabetes. The complications are then explored in further depth in separate chapters on neuropathy and vascular complications, bacteriology, and roentgenography.

Included is a splendid chapter on the surgical pathology of the foot and clinical pathologic correlation, which should be of inestimable value to anyone attempting to deal with diabetic infections. This is followed by a discussion of surgical principles and plans for treatment (debridement and indications for various amputations) as well as rehabilitation of the diabetic amputee. One chapter summarizes the care of the foot by the podiatrist.

There is, necessarily, some repetition by each author, but I found the book informative, interesting, and progressing in an orderly, easy-to-read fashion. It should be of great interest and usefulness to every physician who treats diabetics.

Samuel E. Einhorn, M.D.

Colon and Rectal Surgery: Continuing Education Review. Eric J. Lazaro, M.D. Flushing, New York, Medical Examination Publishing Company, 1973. Pp. 214 (Softback—\$10)

Most people find preparing for a medical examination a strain. The field to be covered is so broad and the time to prepare so limited. Dr. Lazaro has provided a good background of questions with concise answers for persons preparing for many forms of medical examination. While primarily designed to use in preparation for boards in colon and rectal surgery, the contents certainly are of help for general surgery, pathology, and other areas having a tie-in with colon and rectal surgery. The breadth of material covered in the seven hundred questions and pertinent answers in the book is commendable.

The continuing increase in trauma in our society makes the section on colorectal injuries highly appropriate.

The book is well printed and the references are up-to-date. The format makes reading easy. Candidates for the general surgical or colon and rectal surgical boards will find the book of particular use, and others reviewing the subject generally will find it helpful. It is recommended as a fine source of information for those interested in this important subject.

Robert K. Spiro, M.D.

What Women Should Know About the Breast Cancer Controversy. George Crile, Jr., M.D. New York, MacMillan, 1973. Pp. 179. (\$4.95)

The author, in making a statement about his detractors, aptly quotes Pascal: "Men never do evil so completely and cheerfully as when they do it from religious conviction." This would apply more easily to the author than his peers.

The author made a sincere effort to aid medicine by dispelling many myths about breast cancer, explaining the various methods of diagnosis and therapy. And he presents a very strong case for females not to fear early diagnosis. I can wholeheartedly agree with the author in stressing the need to obtain true informed consent for any surgery. He presents a beautiful chapter entitled, "There Is Always Hope," which I can recommend for any person who has cancer or who is closely related to someone with cancer. After this I feel the author creates more harm than good.

Dr. Crile seems to be very anxious to prove all of his statements with statistics and he even gives a bibliography by chapter. It is easy for one with a medical background to look up the articles that the author cites and draw diametrically opposed conclusions. This is unfair to the lay reader who will not bother to look up the articles, and even if she did, would have difficulty in their interpretation. The author often takes statements out of context to make his theories look good.

The author is engrossed with the production of the least deformity, discomfort, and disability. This is admirable but I cringe at his attitude that current breast surgery is mutilation (a word he comes back to frequently). The use of this extremely descriptive and horrifying word instills fear in patients against radical surgery and does a great disservice to the author and to other surgeons. Dr. Crile appears to be more concerned with beautiful breasts than with survival rates.

The book is filled with testimonials by women as though it were an advertisement for a youth elixir. My wish is that this distinguished surgeon and author confine his research and writing to medical publications and not give false hopes to an anxious public who is so willing, rightfully so, to grasp at any straw.

Philip L. Kauff, M. D.

Parents' Guide to Allergy in Children. Claude A. Frazier, M.D. New York, Doubleday, 1973, Pp. 338 (\$7.95)

The more a patient knows about his condition the better the patient. This is especially so in allergic diseases. In allergy each case must be individualized and treated accordingly. No book should be a "do it yourself" treatment manual and this one is written with these factors in mind.

The book is of value to doctors and nurses and is helpful to the lay person concerned with allergy. It contains a great deal of information which patients and parents can find useful and comforting. It is virtually a small encyclopedia of allergy, broken down into chapters and sections that make for easy reading.

Doctor Frazier is a practicing pediatric allergist and has a practical book, well and simply written. It is highly recommended to physicians who will find it of aid in treating their allergic patients. The patients and their parents will find it of value in understanding their disease.

Stanley Sackin, M.D.

The Persecuted Drug: The Story of DMSO. Pat McGrady. New York, Doubleday, 1973. Pp. 372. (\$7.95)

In the ten years since DMSO's clinical value was first suggested, it has been the subject of more than 1,200 papers and it has been administered to perhaps more than one million human patients. Nevertheless, today it is approved by the FDA for use only in a very few veterinary indications.

This book, written by an experienced science writer, chronicles DMSO's history and the devastating effect it has had on the lives of its discoverer, Robert Herschler of Crown Zellerbach, and its medical champion, Dr. Stanley Jacob of the University of Oregon Medical School.

Writing in an exposé style, repetitiously alternating abstracts of published reports with many medical and lay testimonials to the drug's effectiveness, mounting a protracted attack on the FDA (the inferred persecutor of DMSO) for its restrictive control over the drug, now idolizing and now castigating segments of the medical community, the author has diminished his book's readability and objective impact even though he has obviously done exhaustive research.

In spite of style and attitude, however, Pat McGrady has recorded an important aspect of the history of governmental control over American medicine in the 60's and 70's. Significant human toxicity has never been experienced with DMSO, according to McGrady's information, and this makes the FDA's position especially vulnerable with respect to DMSO, which still appears to be a true "wonder drug."

Hyman W. Fisher, M. D.

Reoperative Gastrointestinal Surgery. T. T. White, M.D. and R. C. Harrison, M.D. Boston, Little, Brown, 1973. Pp. 304. Illustrated. (\$25)

Approximately 8 per cent of gastrointestinal surgical operations eventually must be re-explored. The surgeon must decide whether to reoperate (and what surgical procedure to use) or to follow a non-surgical path. This book will prove a classic reference in these decisions. The authors have considered almost every conceivable complication in great detail, covering every type of gastrointestinal operation. The book is highly recommended to surgeons and gastroenterologists, from resident level and up, to be read at leisure and as a reference when confronted by a specific problem. The writing is good and lean. I suspect many readers will disagree with some of the expressed opinions but the authors offer good documentation and extensive references to the work of the leading expert surgeons in each area.

Norman Riegel, M.D.

Post Mortem. David M. Spain, M.D. and Janet Kole. Garden City, New York, Doubleday. 1974. (\$7.95)

The book is an account of civil rights activity from the viewpoint of an involved forensic pathologist. To one who anticipated a more mundane discussion of anatomical pathology because of its title, the book is a surprise. The technical phases of forensic pathology discussed are well explained. A suggested better title would be "Civil Rights Pathology by a Concerned Advocate."

The reviewer heartily agrees with the author's comment on William Kunstler. (He would ask me to

stand by and usually that would be the last I would hear from him. He has certainly proved to be the most ubiquitous lawyer I have ever encountered.)

The author's justification of murder by members of the Black Panthers—"Panthers are desperate men—their desperation growing out of frustration, helplessness and degradation—and so they engage in desperate acts," appears to show the author in an ambivalent attitude, against murder (pathological) but condoning murder (Black Panther).

The author's heroic opposition to Dr. Helpern over a brain trauma without visible sign of brain damage is explained by the later statement—"The physical evidence in an autopsy is incontrovertible: bias comes in when the pathologist interprets it."

While the author assumes his experiences are unique, the reviewer feels they have been shared by many workers in the field of pathology who will echo his statement—"This means that first crack at 70 per cent of homicide autopsies is in the hands of relative incompetents."

Abortion, cigarette smoking, disposable materials, Attica—all come within the author's perusal. Certainly his unburdening in a published volume should calm his obvious mental anguish over society's inadequacies.

On abortion—"The overriding issue to me is that each woman must have the inviolate right to a complete freedom of choice as to how and what she will do with her own body and her own life. The other issues are all peripheral, an intellectual or emotional trick designed to camouflage or rationalize the hypocrisy, deep-rooted prejudice, antiquated theological dogma, or opportunistic political motivation that is aimed at keeping women shackled through outmoded abortion codes."

In the sense that the author's story is a retrospectroscope on civil rights pathology the title, "Post Mortem" appears justified—Ugh!

T. K. Rathmell, M. D.

CLINICAL NOTES

Readers of THE JOURNAL are invited to submit personal contributions for this new page. Material of general interest, which can be concisely summarized (one or two paragraphs—up to 150 words), and does not require a thorough report, is preferred. If you have a successful new procedure, a brief practical suggestion, or a bizarre or unusual clinical experience you would like to share with your colleagues, please send it to us (PO Box 904, Trenton 08605) for "Clinical Notes."

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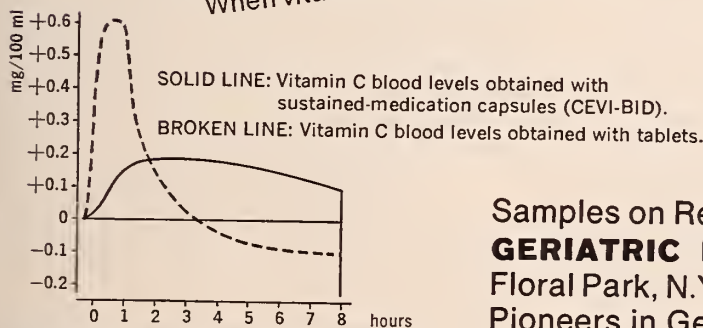
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¹ Riccitelli, M. L.: Vitamin C Therapy in Geriatric Practice, J. Amer. Geriatrics Soc. 20: 34, 1972.

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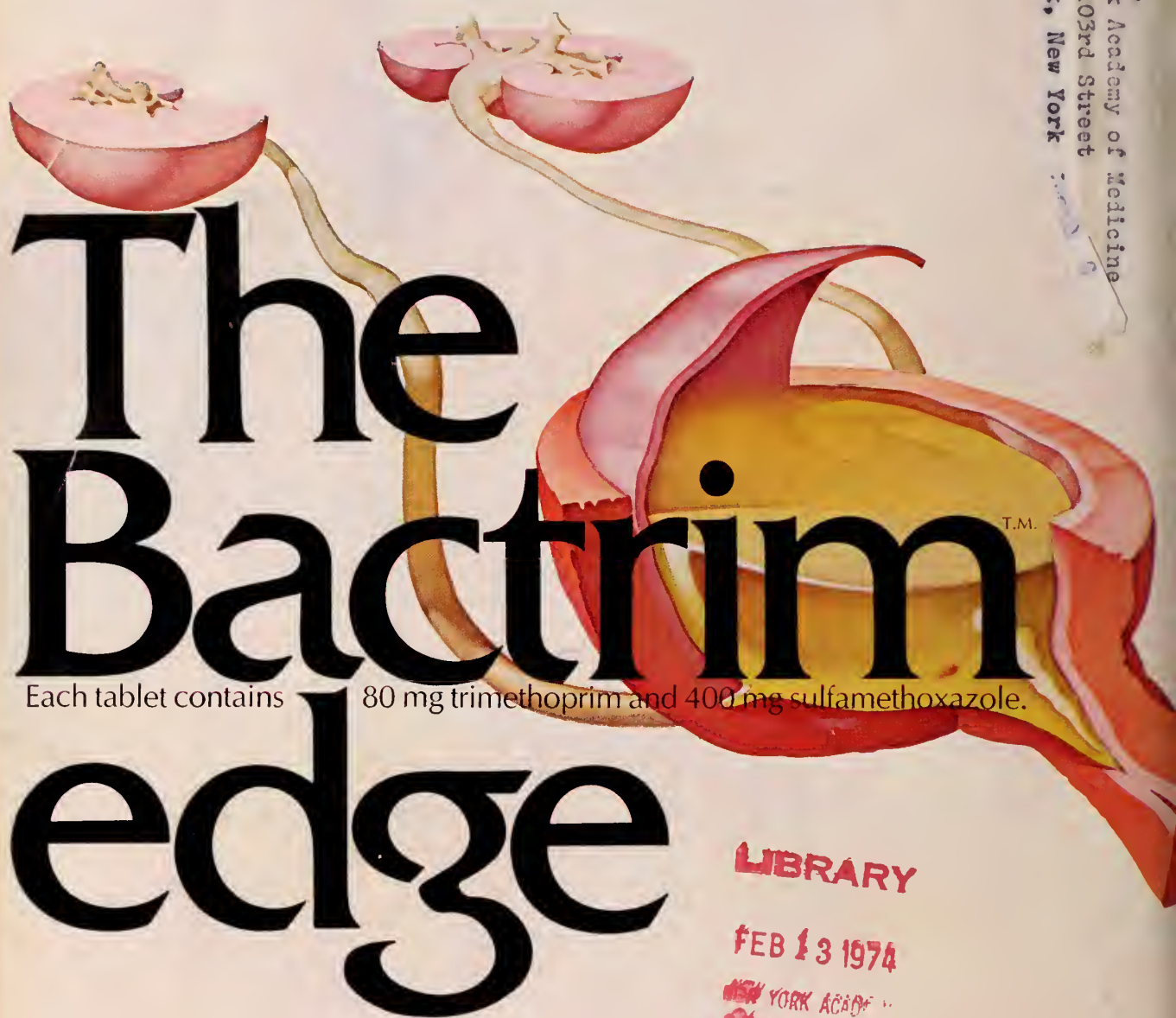
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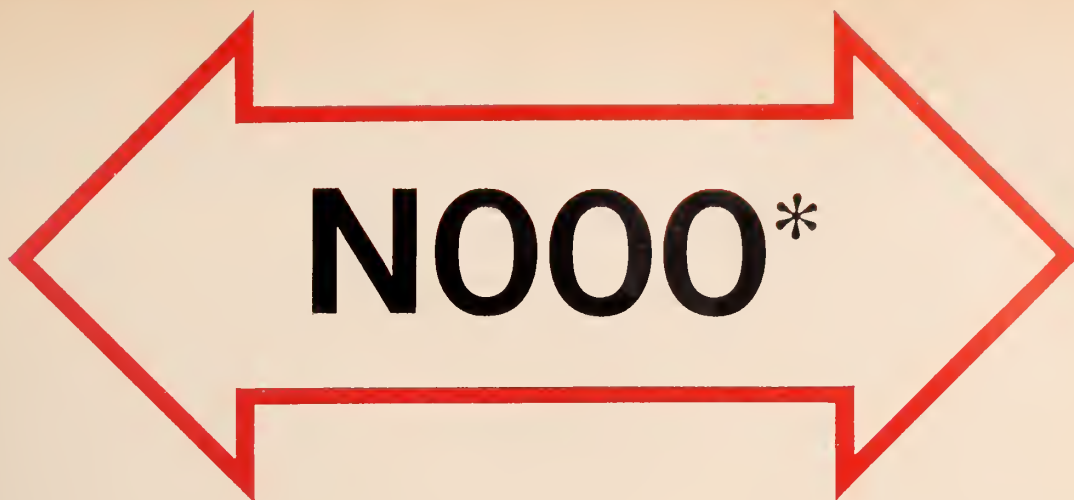
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Association



Joint Statement on Antisubstitution Laws and Regulations

The purpose of this statement is to affirm the support of the participating organizations for the laws, regulations and professional traditions which prohibit the unauthorized substitution of drug products.

Traditionally, physicians, dentists and pharmacists have worked cooperatively to serve the best interests of patients. Productive cooperation has been achieved through mutual respect as well as a common concern for the ideals of public service. This mutual respect has been reflected, in part, by joint support over the years for the adoption and enforcement of laws and regulations specifically prohibiting unauthorized substitution and encouraging joint discussion and selection of the source of supply of drug products. The basic principles of medical, dental and pharmacy practice are thus utilized and preserved in the interest of patient welfare.

The antisubstitution laws have not obstructed enhancement of the professional status of pharmacy any more than they have in and of themselves guaranteed absolute protection from unsafe drugs, or freed physicians, dentists and pharmacists from their responsibilities to patients. As a practical matter, however, such laws and regulations encourage inter-professional communications regarding drug product selection and assure each profession the opportunity to exercise fully its expertise in drug usage, to the advantage of patients.

Physicians and dentists should be urged to increase the frequency and regularity of their contacts with pharmacists in selection of quality drug products, recognizing that

economies to patients can be improved through such communication, taking into account the patients' needs. The pharmacist's knowledge of the chemical characteristics of drugs, their mode of action, toxic properties and other characteristics that assist in making drug selection decisions should be utilized to the fullest extent practicable by physicians and dentists in serving their patients.

Since drug product selection entails knowledge derived from clinical experience, the physician's and dentist's roles in product selection remain primary and do not permit delegation of decisions requiring medical and dental judgments. A broader role in therapy will evolve for pharmacists as improved understanding and cooperation among the professions continue to grow.

There has been no evidence that there are convincing reasons to modify or repeal existing laws and regulations prohibiting the unauthorized substitution of another drug product for the one specified by a prescriber. It is our belief that such laws and regulations merit the joint support of the medical, dental and pharmaceutical professions and the pharmaceutical industry.

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EDITORIALS

Grouping of Scientific Articles

The present issue is unique by virtue of an assemblage of essays which deal with pregnancy, including antepartum, intrapartum, perinatal, and, to some extent, postpartum factors. Lest the readers misconstrue our editorial intention, we hasten to point out that our primary purpose is to make this information available to the non-obstetrician, especially the generalist, the internist, and the pediatrician.

A moment of reflection will convince one that obstetricians are likely to be fully aware of many of these concepts from their own specialty journals, while primary physicians, specialists in other fields, and subspecialists may not be. On the same vein, a series of articles on nutrition, cardiovascular disease, immunology, or endocrinology is likely to cut across special interests.

To the extent possible, future issues may be similarly devoted to single or related topics from time to time.

A.K.

A Challenge

The quality of a medical journal primarily depends on the endowments of the manuscripts submitted and ultimately published. Whether the subject be scientific, technical, social, or economic, the paper must contain certain characteristics in order to communicate well. Kuehn has provided us with a concise summarization of them.¹

"The *first quality* I notice in a manuscript that communicates well is its *craftsmanship in grammar and composition*. I admire any writer who can keep his style intact as the printed word is increasingly pitted against television, films, and audio cassettes. I admire

this accomplishment particularly in the scientist. The novelist and the journalist can cover up their lack of knowledge of the English language with a breezy style and an arresting content. The author of a scientific paper can offer no such compensation. *His subject requires that he write concisely, choose his words correctly, and express himself clearly and logically. Imprecisions in grammar or syntax make a scientific paper limp.* If the deficiencies are serious, they can erode the reader's trust in the reliability and validity of the information it transmits.

"Another attractive quality of scientific writing is *freedom from jargon*. The language of medicine has a beauty of its own, a beauty perhaps only those who belong to a generation that considered a thorough knowledge of Greek and Latin a necessary preparation for an academic career can discern and appreciate. If used judiciously and correctly, medical terminology can serve the various purposes of medical communication not only adequately, but also elegantly. Medical jargon is the dry rot of medical terminology. It is meant to be a kind of shorthand for those who by training and experience know how to decipher the language peculiar to a profession. Yet, in my opinion, nothing emasculates the language of medicine as effectively as jargon. Instead of sharpening the outlines of scientific images and models, it blurs and distorts them. Moreover, when jargon is coupled with the needless and excessive use of technical terms, the manuscript creates in me the uncomfortable feeling that the author clings to concepts and attitudes that two world wars and the upheavals of our time had proved to be invalid. Science has never been successfully integrated into the life of society, mainly because too many scientists have for too long given the impression that they hold a privileged position as members of an elite who are accountable to no one but themselves. The writer who shrouds his language in expressions that sound erudite, mysterious, and complex, only perpetuates this notion.

¹ Kuehn, H. R.: Resuscitating the scientific paper. JAMA 226:452-454, 1973. (Italics mine—AK)

"The final quality of good scientific writing is a *flair for balancing the analytical thinking of the scientist against the creative and intuitive thinking of the artist who is in love with his subject*. Albert Einstein and Sigmund Freud were such writers. They—and countless other scientific writers—show that good scientific writing is as much the result of the author's attitude toward his subject as the result of his knowledge and expertness with words. For this reason, I believe that *seriousness of purpose, concentration on facts, and economy of words*—elements that set scientific writing apart from other forms of writing—do not have to render a scientific paper flat, drab, and lifeless. *Imagination, flair, intuition, a touch of cultural and spiritual refinement, and an occasional spark of literary finesse* are not frivolous embellishments of scientific writing, but an inspiration to the reader and a pleasure and relief to the editor. If the view prevails that the effective transmittal of scientific information requires austerity of style, I am afraid that creativity in scientific thought and articulation will be unnecessarily stifled.

"I don't want to suggest that a good scientific paper should read like "A Midsummer Night's Dream," or that a physician who can't identify Beethoven's Symphony No. 5 the moment he hears the first bars should leave pen and typewriter well alone. I do suggest that writing, any kind of writing, is a creative act and a form of art that nothing can stimulate and help develop more effectively than leisure used creatively. Listening to classical music, or reading Shakespeare, will stimulate one's creative faculties, as will, indeed, fishing, golfing, or playing chess. So will other stimuli."

To those members of the medical profession in New Jersey who feel that *JMSNJ* can be improved, we issue a challenge. Think of your own journal as a primary publication source and send us your best efforts for consideration. As suggested by Mr. Kuehn, we would like to include "new, fresh, imaginative, and experimental writing" and will not reject out-of-hand the "untried, unorthodox, and unfamiliar."

A.K.

Return of Polypharmacy

In the 1920's and 1930's, the medical student was taught how to write a prescription often containing many ingredients. He was taught about incompatibilities. The pharmacist in those days had a kind of scorn for prepackaged medications—for dispensing tablets by pouring them from big bottles into little bottles. The drug manufacturers obliged by putting out more and more drugs all ready for use. Thus, the practice of medicine could be visualized as a simple matter of prescribing the one elegant compound that would do most for the patient according to the gospel of the manufacturer or his visiting representatives. Then, the easiest way for the physician to treat his patient was to write a prescription. We came close to the "pill for every ill" philosophy. So, if a patient had a variety of symptoms, it seemed logical to prescribe an anodyne, an anti-spasmodic, a soporific, an appetite stimulant, and so on. By a strange irony, in the 1970's we seem to be getting back to the complex many-medication treatment that characterized the 1920's and 1930's.

Such polypharmacy was understandable. A recent Danish medical journal editorial reviewed a report from Johns Hopkins which indicated that a group of hospital inpatients received an average of 15 different medications during their hospital stay which, the editorial said, was "considerably above that in Danish hospitals"—an observation not intended as a compliment to American medical practice.

There has been a healthy interest lately in the hazards of medication, in the problems produced when you had to consider the impact of one drug upon another—which becomes increasingly difficult as you increase the number of drugs. Just writing another prescription is easy—too easy. Before you know it, your patient may be taking seven medications at once. A little birth control in prescribing may be called for, may, indeed, be just what the doctor ordered—or should order.

H.A.D.

ORIGINAL ARTICLES

The selective use of currently available physiologic radiographic and biochemical techniques during the antepartum phase of pregnancy enhances the diagnostic, prognostic, and therapeutic acumen of the obstetrician.

Monitoring of the High Risk Pregnancy: Part I—Antepartum*

James P. Thompson, M.D./Newark

The concept of high risk obstetrics is not a new one—efforts of the past decade have resulted in formalizing this concept and, more importantly, the development of a screening system to identify and isolate the at-risk group. There has been recognition that a variety of obstetric, medical, and social factors differentially prognosticate and contribute to risk for pregnant women and their unborn offspring.¹ Ideally, patients whose reproductive capacity is suboptimal should be identified early in the course of school physicals, premarital examinations, and certainly at the time of the initial prenatal visit. Utilizing knowledge of these adverse factors, approximately fifteen percent of the general obstetric population may be adjudged at risk by the time of their first obstetrical visit. In addition, ten percent of those thought free of prejudicial factors will develop actual or potential insults during the course of their pregnancies. Twenty-five percent of obstetrical patients may thus be considered vulnerable.

In pregnancy the whole effort of intensified care is compromised if the mother, fetus, and placenta are not viewed as one biologic unit. Consideration of fetal and neonatal life as a continuum has lead to the joining together of many disciplines to form the perinatal concept. Teamwork is inherent to the concept, and interdisciplinary exchange at all levels is essential to secure the ultimate aim of reducing perinatal mortality and morbidity to a minimum.

The methods currently employed to assess fe-

tal maturity and well-being include physiologic techniques and blood, urine, and amniotic fluid determinations. Although they may appear to focus on only one component of the maternal-fetal-placental unit, if used to complement other studies, they are of great use in evaluation of the over-all picture.

Physiologic Techniques

1. *Radiologic investigation* based on the presence of fetal epiphyseal ossification centers as evidence of maturity is fraught with an element of subjectivity because the distal femoral epiphysis—visualization of which indicates a gestational age of 37 weeks—is often obscured by other fetal small parts. In an effort to obtain a more discernible radiologic endpoint it has been proposed that measurement of the fetal lumbar vertebrae correlates with gestational age.² A postero-anterior (PA) view of the abdomen is obtained and the fetal lumbar spine is measured from the upper endplate of the first lumbar vertebra to the lower endplate of the fifth lumbar vertebra. A measurement of 5 cm. or greater is thought consistent with a pregnancy of gestational age 38 weeks or greater. Gestational age is often not an acceptable criterion of fetal maturity and this technique leaves much to be desired when dealing with a pregnancy at risk.

2. *Fetal electrocardiography* has failed to live

* Read before the Joint Sections on Obstetrics and Gynecology and Pediatrics, 207th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 14, 1973. Dr. Thompson is Director, Department of Obstetrics and Gynecology, St. Michael's Medical Center, Newark, and Associate Professor of Obstetrics and Gynecology, CMDNJ, New Jersey Medical School.

up to its initial promise because of the major problem of separating fetal cardiac activity from maternal abdominal and uterine muscular interference. Fetal ECG may be of use in diagnosing twin pregnancies in which two distinct complexes are present and breech presentations in which the complex is inverted. The presence of a fetal cardiac malformation may appear as a conduction defect on the tracing. Sophisticated electronic monitoring systems have largely superseded the use of fetal electrocardiography.

3. *Ultrasonography* is based on the principle that sound waves, unlike light waves, can pass through human tissue. Ultrasound is that sound with a frequency greater than 20,000 cycles per second and its diagnostic use is based on the fact that its high frequency and short wave length provide an acceptable degree of resolution.³ Of advantage also is the fact that it can be controlled in beam form. Soft tissue studies are possible because different tissues transmit and reflect sound differently. Three types of ultrasound diagnostic techniques are presently available to the obstetrician:

Doppler ultrasound motion sensors are marketed commercially as self-contained battery operated units.⁴ They are useful for the detection of fetal cardiac activity as early as ten weeks gestational age. Audible monitoring of the fetal heart rate during labor is also possible with this unit.

Unidimensional A-scan sonograms may be used to measure the fetal biparietal diameter. A diameter of 9.5 cm. is compatible with the presence of a mature fetus.⁵

Two dimensional B-scan sonograms represent the synthesis and compounding of multiple linear scans and the echoes from the sound source may be displayed geographically on a cathode ray tube and a permanent record made.⁵ This technique is useful in assessing the progress of pregnancy; determining the location of placental implantation and, especially, in the diagnosis of hydatidiform mole.

The initial expense of the apparatus, with the need for a trained technician to obtain the sonogram, render its availability to the average obstetric service unfeasible. The ideal solution is to share cost and technical help with cardiologists and neurologists who also appreciate the value of ultrasound diagnosis.

4. *Oxytocin challenge test (OCT)* or "uterine stress test" was introduced in 1968 by Pose⁶ and it is based on the fact that each uterine contraction produces a reduction of fetal blood pO_2 . When fetal blood pO_2 falls below a critical level (18-20 mm. Hg) vagal stimulation occurs and the fetal heart rate decelerates.

An external ultrasonic monitor of fetal heart rate is attached to the maternal abdomen and an intravenous infusion of oxytocin is begun prior to the onset of labor. The infusion is continued until the induced uterine contractility has been maintained for thirty minutes with observation of the pattern of the fetal heart rate. If a transient fall in FHR occurs immediately after the corresponding uterine contraction (so-called "late deceleration" pattern), it is thought best to deliver the infant without allowing labor to take place when signs of maturity appear. The OCT is of greatest value in patients with preeclampsia, hypertension, or diabetes complicating their pregnancy.

Blood Determinations

1. *Heat stable alkaline phosphatase (HSAP)* is one of a large group of enzymes of low specificity that share in the hydrolysis of phosphate esters in an alkaline medium. Electrophoretic studies reveal four isoenzyme patterns of which isoenzyme D resists inactivation by heat, and immersion of serum from a pregnant patient in a water bath at 56°C for thirty minutes destroys all but phosphatase of placental origin (isoenzyme D). There is a progressive rise as pregnancy approaches term and, independent of the method of determination, if greater than fifty percent of the alkaline phosphatase is heat stable, the placenta is thought to be of a size

compatible with the presence of a mature fetus.

2. *Diamine oxidase* (DAO) is an enzyme that catalyzes the oxidative deamination of histamine. Histamine is important in the metabolism of rapidly-growing fetal tissue, and DAO levels that are falling or are persistently low during early pregnancy are associated with significant fetal wastage.⁷ The ability of assays of DAO activity to detect or predict the outcome of "high risk" pregnancies is debatable in view of the wide range of normal values and the requirement of a somewhat complicated radioassay system.

3. *Human placental lactogen* (HPL) is a polypeptide placental hormone with both lactogenic and growth-promoting properties that is secreted in increasing amounts as term approaches. Its importance at present lies not so much in its use as a diagnostic aid, but rather in an understanding of its metabolic role which closely mimics that of human growth hormone.⁸ HPL may, however, be regarded as a qualitative index of growth and function of the placenta. It has been estimated that 1 ug of HPL correlates with the presence of 100 grams of placental tissue, thus accounting for levels of 6-9 ug at term. A "fetal danger zone" of less than 4.0 ug may be found in patients with severe hypertension or idiopathic placental insufficiency.⁹ Serial determinations are of greater use than an isolated value.

Urine Determinations

1. *Human chorionic gonadotropin* (HCG) bears no consistent relationship to placental integrity or fetal well-being. Complications such as diabetes mellitus and Rh sensitization may be associated with higher-than-usual levels at term, but this is not a feasible means of detecting a distressed fetus. Its greatest value is in the detection and follow-up of patients with trophoblastic disease.

2. *Pregnanediol* is the metabolic end product resulting from progesterone synthesis and secretion by the placenta. With the exception of maternal cholesterol, precursor substances from the mother and fetus are not important

in progesterone production during pregnancy. There is a progressive rise in pregnanediol excretion as term approaches, such that from the thirtieth week on, 1 ng./week of gestation/24 hours may be considered normal. Since pregnanediol is an indicator of placental integrity, it may be of use in following patients with evidence of placental insufficiency. Emphasis should be placed on serial determinations, rather than on an isolated value.

3. *Estriol determination*, theoretically, should be the single most useful test in assessing high-risk pregnancy. It provides a measurement of the ability of the fetus to supply sixteen alpha-hydroxylated precursors from the adrenal gland; the ability of the placenta to convert this to estriol and the ability of the mother to conjugate and excrete this biologically-inert end product. Deficiencies may occur in any "compartment" of this system.

Practically, however, estriol determinations are often less than ideal. Sample loss may occur either at the time of collection or during the assay. The presence of excessive amounts of glucose or protein in the urine may give lower values. Mandelamine® may interfere with colorimetric evaluation and Ampicillin® may suppress urinary excretion of estriol. The delay from onset of collection to obtaining of results and the expense factor also serve to decrease the utility of estriol determinations.

None of the stated disadvantages is insurmountable, however, and under ideal circumstances serial determinations of urinary estriol obtained at 48-hour intervals as term approaches provide the most accurate information as to fetal well-being. Values greater than 25 mg./24 hours are considered normal and any fall of a magnitude greater than fifty percent from the previous determination or to a level lower than 12 mg./24 hours is suggestive of deterioration in one of the compartments and indicative of the need to terminate the pregnancy. Levels between 8 and 12 mg./24 hours are compatible with attempts at vaginal delivery while levels below

8 mg. of estriol/24 hours suggest the need for abdominal delivery.

Amniotic Fluid Determinations

1. *Fetal fat cells* may be used to determine the functional maturity of the integumentary system and specifically that of the sebaceous glands.¹⁰ One drop of 0.1 percent Nile blue sulfate solution is added to one drop of amniotic fluid on a clean glass slide. The slide is gently heated and a cover slip applied. Scanning of the slide reveals two distinct cellular elements: large blue-staining cells with dark blue nuclei that are considered to be fetal squamous cells and small orange-staining, anucleated cells thought to be fat cells. A fat cell count in excess of twenty percent indicates the presence of a mature fetus. A word of caution is in order in the presence of maternal diabetes in that alterations in lipid metabolism may lead to spurious elevation of the fat cell count.

2. *Creatinine* is a measure of renal maturity and levels greater than 1.8 mg./100 ml. correlate with the presence in the fetal kidneys of at least one million functioning glomeruli. Creatinine is also related to muscle mass of the fetus and low values may be obtained in intrauterine growth retardation in which the infants are of low birth weight but mature. Thus, low creatinine values coupled with clinical evidence of a small infant in the face of other positive tests of maturity should be considered in this regard. Hypertensive disorders of pregnancy (including preeclampsia) and maternal renal disease may give rise to falsely-elevated levels and maternal creatinine levels should be obtained. An amniotic fluid-maternal serum creatinine ratio of 3 to 1 may be taken as a sign of maturity in such patients. The commonly-employed Jaffee picric acid reaction provides suitable accuracy.

3. *Bilirubin levels* in the amniotic fluid decrease as term approaches in the absence of Rhesus sensitization.¹¹ Spectrophotometric analyses that reveal an optical density difference of 0.015 or less at 450 mμ are compatible with maturity of the fetal enzyme system operative in the conjugation of bilirubin. The presence

of maternal hepatitis or hemolytic anemia may lead to elevation of the optical density difference despite the presence of a mature infant.

4. *Lecithin-sphingomyelin ratios*, in my opinion, are the single most accurate determinant of the ability of the fetus to withstand extrauterine existence. The alveoli of mammalian lungs are lined by a unique surface-active material (surfactant) that tends to prevent alveolar collapse on expiration, thus contributing to the stability of the lungs.¹² In effect, once the newborn has expended the necessary effort to initially distend the alveoli, the presence of surfactant allows a small amount of air to remain in each alveolar sac and succeeding respiratory effort is accomplished with greater ease. The principal surface-active molecule that lowers surface tension in the wall of the alveolus is the phospholipid lecithin. This antiatalectasis factor is known to be absent or rendered inactive in respiratory distress syndrome of the newborn.¹³ Since the fetal lung is a secretory organ, it contributes phospholipid to the amniotic fluid. Sphingomyelin concentrations change little throughout pregnancy while lecithin, which rises progressively, shows an abrupt rise at 36 weeks' gestation. Thin layer chromatographic separation and visual estimates of the lecithin-sphingomyelin ratio allow predictions of maturity of the fetal lung.¹⁴ A ratio of less than 1.5 indicates relative immaturity of the fetal lung and a significant number of infants with this pattern, if delivered, will develop RDS. A ratio between 1.5 and 1.9 is considered to be an "intermediate" pattern and a much smaller percentage of these infants delivered will develop RDS. If RDS does occur, it is usually of a less severe clinical nature and a good outcome for the newborn should be anticipated. A ratio greater than 2.0 is compatible with lung maturity and RDS should not occur despite gestational age or weight of the newborn.

Personal experience with use of the L/S ratio dating back to 1971 and involving in excess of 225 amniotic fluid determinations has failed to reveal a single newborn with RDS in which

thin layer chromatography revealed a mature pattern.¹⁵ An intermediate pattern in the face of factors otherwise suggesting termination of pregnancy (e.g. falling urinary estriol levels) has rarely been accompanied by the development of RDS in the newborn. When the L/S ratio indicates immaturity, chances that the newborn will develop respiratory distress are directly related to the incidence of this syndrome in a random population of premature fetuses of similar gestational age. Not all newborn infants born to mothers with an immature L/S ratio develop RDS. Knowledge of factors which may affect the development of pulmonary surfactant and, thus the L/S ratio, is essential for correct assessment of the fetus. Table 1 illustrates the more commonly encountered complications of pregnancy and their possible effect on the ratio.

TABLE I

Factors affecting lecithin-sphingomyelin ratio

1. Accelerated Maturation
 - Hypertensive disorders
 - Renal disease
 - Diabetes mellitus—Classes D, E, F
 - Sickle cell anemia
 - Heroin addiction
 - Abruptio placenta
 - Ruptured membranes > 36 hours
 - Intrauterine transfusion
 - Glucocorticoid administration
2. Delayed Maturation
 - Diabetes mellitus—Classes A, B, C
 - Hydrops fetalis

Until recently the thin layer chromatographic technique of Gluck was not readily available. Knowledge of the fact that surface-active material produces an extremely stable foam that cannot be broken by a defoaming agent such as alcohol has led to the development of a foam or shake test that can be performed at the bedside.¹⁶ One cc. of centrifuged amniotic fluid is mixed with a like volume of 95 per cent ethyl alcohol and the mixture shaken for 15 seconds and then allowed to sit for 15 minutes. In the presence of an adequate amount of amniotic fluid phospholipid, a thin layer of bubbles is present at the meniscus. The test is simple, inexpensive, and reasonably accurate.

5. *Sex chromatin* determinations may be useful in patients with a family history of sex-

linked autosomal disorders such as hemophilia and certain types of muscular dystrophy. Cresyl violet stain of amniotic fluid sediment is examined for the presence of Barr bodies. A more direct approach is now available in that the Y chromatin mass of cells in the sediment may be determined and the presence of a male fetus ascertained.

6. *Amniotic fluid enzymes* and metabolic end products may be useful in the determination of genetic disorders such as Tay-Sachs disease, Lesch-Nyhan syndrome, adrenogenital syndrome and some forty other defects in the content or expression of the genetic information in the DNA molecule.¹⁷ At present these are for the most part tedious, time-consuming procedures performed only in a few medical centers.

7. *Fetography*—the use of contrast material to study the fetus in utero—holds great promise in assessing fetal topography.¹⁸ A fat-soluble and water-soluble dye are injected at the time of amniocentesis to outline both the fetus and the amniotic cavity. I use 8 cc. of Ethiodol® and 12 cc. of Hypaque® and take a flat film of the abdomen thirty minutes later. Warming of the Ethiodol® prior to instillation makes its passage and dispersal much easier. In its simplest form fetography may be used to detect fetal swallowing and the integrity of the gastrointestinal tract. In this case a twenty-four hour film is necessary. Of more importance is the detection of fetal anomalies and especially fetal hydrops. The presence of more than 4 mm. of scalp edema is highly suggestive of the presence of a hydropic fetus. This finding in sensitized Rh negative mothers is a relative contraindication to intrauterine transfusion. If found in a mother suspected of harboring a fetus with a hemolytic disorder, it is indication for termination of the pregnancy.

Because of the reduced birth rate over the past few years, some health care planners have tended to show decreasing concern for the adequate provision of quality perinatal care. Obstetricians must not be lured into this lair. Constant awareness is necessary that, as this reduction in birth rate occurs, there is a

simultaneous increasing concern among the populace for maximum quality of these new lives so consciously conceived. Clearly, intensified perinatal care is more important now than ever before, not regardless of, but because of the falling birth rate.

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306 High Street

Physician's Name in Advertising

A physician who permits his name and photograph in an advertisement is acting contrary to the principles of the profession, the American Medical Association's Judicial Council declared in a reaffirmation of an earlier opinion. The Council said it had found evidence of a proliferation of advertising of this nature in both public and professional periodicals.

"Regardless of disclaimers and alleged educational claims . . . the intent of using a physician's name and photograph in an advertisement is simply to draw attention to the ad," the council declared. "The physician who permits his name and photograph to be so

used is permitting himself and his profession to be exploited."

The Judicial Council had previously stated that it is "demeaning to the medical profession" for a physician to permit the use of his name and professional status in the promotion of commercial enterprises.

When facts of a particular case "indicate that the honor and dignity of the profession are denigrated," charges of conduct contrary to the Principles of Medical Ethics should be brought and fully reviewed by the ethics committee of a physician's component medical society, the council said.

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Based on a review of this drug by the National Academy of Sciences — National Research Council and/or other information, FDA has classified the indications as follows:

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Lacking in substantial evidence of effectiveness: For relief of nasal congestion and hypersecretion associated with the common cold and sinusitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Hypersensitivity to any component; concurrent MAO inhibitor therapy; severe hypertension; bronchial asthma; coronary artery disease; stenosing peptic ulcer; pyloroduodenal or bladder neck obstruction. Children under 6.

Warnings: Caution patients about activities requiring alertness (e.g., operating vehicles or machinery). Warn patients of possible additive effects with alcohol and other CNS depressants.

Usage in Pregnancy: In pregnancy, nursing mothers and women who might bear children, weigh potential benefits against hazards. Inhibition of lactation may occur.

Effect on PBI Determination and I^{131} Uptake: Isopropamide iodide may alter PBI test results and will suppress I^{131} uptake. Substitute thyroid tests unaffected by exogenous iodides.

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Adverse Reactions: Drowsiness, excessive dryness of nose, throat or mouth; nervousness; or insomnia. Also, nausea, vomiting, epigastric distress, diarrhea, rash, dizziness, weakness, chest tightness, angina pain, abdominal pain, irritability, palpitation, headache, incoordination, tremor, dysuria, difficulty in urination, thrombocytopenia, leukopenia, convulsions, hypertension, hypotension, anorexia, constipation, visual disturbances, iodine toxicity (acne, parotitis).

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The causes of irritable colon and the diarrhea symptoms that often accompany it can be as diverse as the systemic and emotional irritations man is faced with daily.

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Lomotil tablets are small, easy to carry and easy to take. They act promptly and effectively. Secondary effects are relatively infrequent and, once the first force of the diarrhea is controlled, maintenance is frequently effective on as little as one fourth of the initial dosage.

These same characteristics make Lomotil useful in controlling the diarrhea associated with gastroenteritis, antibiotic therapy and acute infections.



IMPORTANT INFORMATION: This is a Schedule V substance by Federal law; diphenoxylate HCl is chemically related to meperidine. In case of overdose or individual hypersensitivity, reactions similar to those alter meperidine or morphine overdose may occur; treatment is similar to that for meperidine or morphine intoxication (prolonged and careful monitoring). Respiratory depression may recur in spite of an initial response to Nalline® (nalorphine HCl) or may be evidenced as late as 30 hours after ingestion. LOMOTIL IS NOT AN INNOCUOUS DRUG AND DOSAGE RECOMMENDATIONS SHOULD BE STRICTLY ADHERED TO, ESPECIALLY IN CHILDREN. THIS MEDICATION SHOULD BE KEPT OUT OF REACH OF CHILDREN.

Indications: Lomotil is effective as adjunctive therapy in the management of diarrhea.

Contraindications: In children less than 2 years, due to the decreased safety margin in younger age groups, and in patients who are jaundiced or hypersensitive to diphenoxylate HCl or atropine.

Warnings: Use with caution in young children, because of variable response, and with extreme caution in patients with cirrhosis and other advanced hepatic disease or abnormal liver function tests, because of possible hepatic coma. Diphenoxylate HCl may potentiate the action of barbiturates, tranquilizers and alcohol. In theory, the concurrent use with monoamine oxidase inhibitors could precipitate hypertensive crisis.

Usage in pregnancy: Weigh the potential benefits against possible risks before using during pregnancy, lactation or in women of childbearing age. Diphenoxylate HCl and atropine are secreted in the breast milk of nursing mothers.

Precautions: Addiction (dependency) to diphenoxylate HCl is theoretically possible at high dosage. Do not exceed recommended dosages. Administer with caution to patients receiving addicting drugs or known to be addiction prone or having a history of drug abuse. The subtherapeutic amount of atropine is added to discourage deliberate overdose; strictly observe contraindications, warnings and precautions for atropine; use with caution in children since signs of atropinism may occur even with the recommended dosage.

Adverse reactions: Atropine effects include dryness of skin and mucous membranes, flushing and urinary retention. Other side effects with Lomotil include nausea, sedation, vomiting, swelling of the gums, abdominal discomfort, respiratory depression, numbness of the extremities, headache, dizziness, depression, malaise, drowsiness, coma, lethargy, anorexia, restlessness, euphoria, pruritus, angioneurotic edema, giant urticaria and paralytic ileus.

Dosage and administration: Lomotil is contraindicated in children less than 2 years old. Use only Lomotil liquid for children 2 to 12 years old. For ages 2 to 5 years, 4 ml. (2 mg.) t.i.d.; 5 to 8 years, 4 ml. (2 mg.) q.i.d.; 8 to 12 years, 4 ml. (2 mg.) 5 times daily; adults, two tablets (5 mg.) t.i.d. to two tablets (5 mg.) q.i.d. or two regular teaspoonfuls (10 ml., 5 mg.) q.i.d. Maintenance dosage may be as low as one fourth of the initial dosage. Make downward dosage adjustment as soon as initial symptoms are controlled.

Overdosage: Keep the medication out of the reach of children since accidental overdose may cause severe, even fatal, respiratory depression. Signs of overdose include flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia and respiratory depression which may occur 12 to 30 hours after overdose. Evacuate stomach by lavage, establish a patent airway and, when necessary, assist respiration mechanically. Use a narcotic antagonist in severe respiratory depression. Observation should extend over at least 48 hours.

Dosage forms: Tablets, 2.5 mg. of diphenoxylate HCl with 0.025 mg. of atropine sulfate. Liquid, 2.5 mg. of diphenoxylate HCl and 0.025 mg. of atropine sulfate per 5 ml. A plastic dropper calibrated in increments of 1/2 ml. (total capacity, 2 ml.) accompanies each 2-oz. bottle of Lomotil liquid.

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The author describes non-invasive and direct invasive techniques for monitoring crucial fetal parameters, which have practical and hypothetical relations to prognosis and treatment.

Monitoring of the High Risk Pregnancy: Part II—Intrapartum

James P. Thompson, M.D./Newark

New vistas in fetology require development and utilization of multiple tests of fetal welfare and of the diverse manifestations of placental function. Identification and isolation of pregnant patients at risk in an attempt to reduce perinatal morbidity and mortality has been discussed in a previous communication.¹ A unique diagnostic challenge is encountered in the intrapartum interval with its potentially harmful or lethal stresses.

Regulatory measures designed to maintain normal fetal homeostasis during labor are largely dependent on metabolic exchange with the mother via the placenta. Any reduction in the efficiency of this exchange causes a diminution in the supply of essential metabolites to the fetus with subsequent harmful consequences such as hypoxia and acidosis. Homeostatic disturbances in the fetus should be recognized and corrected before irreversible damage ensues.

Sophisticated monitoring techniques including heart rate patterns, intrauterine pressure determinations, scalp blood sampling, and fetal electroencephalography are now available to detect the adequacy of fetal adaptive mechanisms.

Fetal Heart Rate Patterns

There is a scarcity of information concerning the physiologic properties of the developing fetal heart. Fetal heart rate has been continuously recorded during labor in an attempt to reduce perinatal morbidity and mortality. To date the application of heart rate monitoring

during labor has been restricted by this lack of knowledge of the physiologic mechanisms that normally control heart rate and by difficulties involved in distinguishing normal from abnormal changes in heart rate pattern. It is clear that observations concerning compensatory cardiac ability in the adult heart are not necessarily transferable to the fetus and newborn.

The physiological concept of uteroplacental circulation is based on the principle that the head of pressure in the maternal arterial system is the controlling factor affecting circulation of blood through the placenta and specifically blood flow in the intervillous space.² The reduced pressure head and gradient during maternal hypotension may lead to diminished uteroplacental blood flow and subsequent fetal hypoxia. Studies that integrate blood flow in the intervillous space and the fetus with histologic and morphometric aspects of the placenta reveal that the histologic patterns of the placenta designated hypermature (grouping of villi, reduced intervillous space) and senescent (crowding of villi, little intervillous space) may be associated with fetal distress.³ Thus, blood flow alterations to and within the uterus may be reflected by changes in fetal heart rate.

Each uterine contraction causes a transient

* Read before the Joint Sections on Obstetrics and Gynecology and Pediatrics, 207th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 14, 1973. Dr. Thompson is Director, Department of Obstetrics and Gynecology, St. Michael's Medical Center, Newark, and Associate Professor of Obstetrics and Gynecology, CMDNJ, New Jersey Medical School.

episode of fetal hypoxia. The "normal" fetus doesn't require an alteration of heart rate to compensate for this metabolic change. Compression of intramyometrial vessels by the augmented muscular tone of the uterus leads initially to compression of veins that drain the intervillous space. At the acme of the contraction, the arteries supplying blood to the intervillous space are also compressed. The resulting circulatory stasis leads to the accumulation of blood in the intervillous space that is devoid of oxygen and anabolites but contains metabolic waste products. In the absence of heightened uterine tonus or contractility, there is prompt release of the compression of intramyometrial vessels and suffusion of the intervillous space with "fresh" arterial blood to allow the fetus to sustain this temporary insult.

Studies of autonomic nervous system control of the fetal heart rate suggest that the sinoatrial node of the fetal heart is stimulated by a parasympathetic drive of a degree comparable to that in the neonate but that sympathetic drive is minimal.⁴ Input of autonomic stimuli to the sinoatrial node may increase during a contraction but this input is normally balanced so that no change in fetal heart rate occurs with a contraction.

Intermittent stethoscopic auscultation of the fetal heart rate during intervals between contractions has been, until lately, the time-honored method of assessing fetal well-being. Recent studies have shown conclusively that this method is not sufficiently reliable to warrant its use in high-risk labors.^{5,6,7} Auscultation of the fetal heart rate is subject to three types of errors: random sampling gives access to only a small proportion of the data available; counting error based on the observer's individual experiences and, of utmost import, the inability to sample during a contraction. The fetus is under the least stress in the interval between contractions because of the factors elucidated earlier and only the most severe forms of fetal distress will be detected by stethoscopic sampling of the random type between contractions. On the other hand, interval determinations may be perfectly normal

while the stress produced by a contraction may tax fetal compensatory mechanisms. It is beyond argument that the stethoscope will tell us only a fraction of what the fetus wants us to know. This fact should not be construed as a plea to remove fetal stethoscopes from labor suites. In the absence of sophisticated electronic monitoring equipment, attention must be paid to evaluation of the ability of the fetus to withstand labor and, despite its limitations, the stethoscope should be employed in a frequent and orderly manner when no better method is available.

Use of the phonocardiograph to assess fetal heart rate during labor has appeal when you consider that continuous recording and amplification of heart sounds may overcome two of the disadvantages of stethoscopic evaluation. However, extraneous noises are picked up and amplified in addition to heart sounds such that uterine activity during the height of a contraction and voluntary effort during the second stage of labor often distort or obliterate heart sounds during a critical period. These limitations restrict the use of phonocardiography to the period preceding labor (oxytocin challenge test) or early labor when contractions are liable to be less frequent and intense and patient movement is not a problem.

Ultrasonic motion sensors based on the Doppler principle are very useful in continuous surveillance of the fetal heart pattern during labor. Commercially available units are small enough that they may be strapped to the maternal abdomen during labor. The location of greatest intensity of the fetal heart is determined and the unit then placed in this area and strapped lightly in place. The use of a proper conductive gel augments pickup of the signal. The obvious advantage of this "non-invasive" or indirect method of monitoring is that fetal membranes may remain intact and the cervix need not be dilated to obtain an accurate recording of cardiac activity. In addition, many patients may be screened by this technique if electronic equipment is limited on an active obstetric service. Of disadvantage is the fact that maternal movement often dis-

places the fetal signal so that frequent replacement of the sensor is required. In addition, the theoretic dangers of pulsed sound waves exhibiting an adverse effect on fetal tissue through prolonged monitoring awaits further clarification. Sonication studies performed in vivo, in contrast to previous in vitro studies,⁸ indicate that ultrasound is harmless from the genetic viewpoint.⁹

Direct or "invasive" techniques of monitoring fetal heart rate are presently used in many centers to assess fetal well-being. Their introduction, widespread usage, and value in rational conduct of labor is testimony to the untiring efforts of Hon and his associates who were responsible for the development of a simple monitoring device and the demonstration of the significance of certain heart rate changes.^{7,10}

Instrumentation designed to directly measure fetal cardiac activity is based on the presence of a physical connection between the fetus and the counting device. The recent introduction of a stainless steel spiral or auger type electrode that is applied to the presenting part of the fetus has simplified the means of obtaining this physical connection.¹¹ This electrode may be applied at an earlier time in labor with a presenting part as high as minus 2 station and with less trauma to the fetus than the formerly-used clip electrode. As stated previously, membranes must be ruptured. Application of the electrode over a fontanel or on the face should be avoided but the buttock, leg, or foot may be secured without harm to the fetus.

The electrode wires are then connected to a maternal leg plate which serves as a way-station to dampen maternal movement. Signals from the fetus are then amplified and filtered before they are presented to the cardiometer for counting. Beat-to-beat measurement of the peak of the R wave from the fetal QRS complex is then available for counting. This method provides an instantaneous fetal heart rate as opposed to an average fetal heart rate in which many of the subtleties of beat-to-beat variation are lost. The result is

then available to the observer in four distinct areas on the face of the monitor: display of the fetal complex on an oscilloscope, visual and audible display in the form of an "alarm" system, meter display of the fetal heart rate and, most importantly, permanent recording of the pattern on specially-designed paper. Utilizing this modality, the obstetrician has at his disposal an up-to-the-minute awareness of fetal condition and, because of the permanent record, an opportunity to review heart rate patterns previously recorded earlier in labor.

Detailed analysis of pattern interpretation is beyond the scope of this review. An understanding of the concept of baseline and periodic fetal heart rate is essential for those involved in fetal monitoring.¹² Baseline fetal heart rate is the pattern present when the patient is not in labor or, if in labor, the pattern noted during the interval between contractions. The normal fetal heart rate is between 120 and 160 beats per minute and variation in the baseline rate above 160 beats per minute is considered tachycardia and below 120 beats per minute, bradycardia. This corresponds to the accepted definitions as determined by stethoscopic auscultation but inherent in the baseline concept is the fact that these changes occur independent of uterine contractions. Normally there is some variability in the beat-to-beat baseline pattern and a 10-15 per cent degree of variability is not only acceptable but desirable. This reflects the integrity of the fetal autonomic nervous system input to the sinoatrial node of the fetal heart. Loss of this beat-to-beat variability, that is the presence of a straight line recording of heart rate, may indicate beginning decompensation of fetal reserve. The isolated finding of persistent bradycardia is not common but it may be indicative of congenital heart disease in the fetus. Persistent tachycardia in the absence of maternal temperature elevation may signify hypoxia.

The concept of periodic fetal heart rate is based on the variation of heart rate in response to a uterine contraction. It is not necessarily normal for the fetal heart to decrease during a contraction and, in fact, there

is no decrease with approximately 30 per cent of uterine contractions.¹³ Classification of the type of periodic heart rate is based on the pattern it assumes and its relation to a contraction. A pattern of increased rate is termed acceleration while that of a decreased rate is termed deceleration. These changes as related to a contraction may occur during an early phase, late phase, or they may vary somewhat as to the phase of the contraction in which they occur. For practical purposes deceleratory patterns are of much greater concern.

Early deceleration patterns demonstrate a slowing of the fetal heart rate during an early phase of the uterine contraction with prompt return to the baseline level by the time the contraction has ended. Absolute levels of slowing of the heart rate are of secondary importance to the time sequence of its onset and the uniform pattern it assumes in relation to cessation of the contraction. The level may fall as low as 100 beats per minute. This pattern occurs due to a transient compression of the fetal head. It is probably harmless to the fetus.

Late deceleration patterns demonstrate a slowing of the fetal heart rate during a later phase of the uterine contraction. Delay of return to the baseline with a compensatory tachycardia adds significance to this pattern. This latter phenomenon is in variance with the accepted definition of baseline fetal heart rate in which the description is based on the interval between contractions. This pattern, like that of early deceleration, is uniform in shape but it occurs at a later phase of the contraction and it persists beyond cessation of the contraction. Here again absolute levels of slowing are of secondary import and, in fact, most late deceleration patterns occur between 160 and 120 beats per minute. It is easy to see how this pattern would be missed by stethoscopic surveillance. Late deceleration patterns are thought due to uteroplacental insufficiency and persistence of such a pattern indicates fetal compromise. Maternal hypotension and augmented uterine tonus are the most common causes and efforts should be made to correct these adverse factors. Simple maneu-

vers such as turning the patient on her side to displace the gravid uterus from the inferior vena cava and/or desisting with oxytocic stimulation often revert the pattern. If this pattern continues despite corrective efforts, cesarean section is indicated.

Variable deceleration patterns may commence during any phase of a contraction. They are variable not only in timing but also in shape of the pattern. These changes occur within normal heart rate values. Compression of the fetal umbilical cord with consequent decreased venous return to the fetal heart is thought causative. This pattern is frequently associated with clinical signs of fetal distress and resolution often occurs with change to the lateral position.

Combinations of deceleratory patterns may occur and if this is the case, attention should be directed to the more ominous of the patterns and corrective measures taken accordingly.

The importance of fetal heart rate monitoring to the obstetrician depends not only on the availability of a simple monitoring unit and the demonstration of the significance of fetal heart rate changes but also upon the existence of a planned approach to act clinically in the presence of persistent fetal heart rate changes. Scientific documentation of the efficacy of fetal monitoring in decreasing perinatal morbidity and mortality is not yet available.¹⁴ It is generally thought, however, that in the absence of an ominous fetal heart rate pattern the chances of delivering a newborn with a good Apgar score is in excess of 95 per cent. Once again I would like to stress that the thoughts expressed on fetal heart rate monitoring in this presentation are largely those of Hon and are derived from publications of his work over the past fifteen years.

Intrauterine Pressure Determination

In direct contrast to the precision involved in fetal heart rate monitoring, determination of intrauterine pressure is characterized by a lack of precision. The diverse nature of in-

trauterine contents, the uneven contractile properties of the myometrium and even the various techniques of measuring intrauterine pressure may lead to significantly different values.

If fetal membranes are intact, a tokodynamometer may be attached to the maternal abdomen to measure changes in pressure. Best results are obtained if the unit is placed in the midline above the umbilicus. It must be stressed that recordings of intrauterine pressure obtained by this external or "non-invasive" method do not represent absolute values in mm Hg as obtained by the "invasive" technique.

The simplest and most common method of recording intrauterine pressure when membranes have ruptured involves the creation of a fluid contact between the uterine cavity and a pressure transducer. A polyethylene catheter may be inserted into the uterine cavity transcervically below or lateral to the presenting part to a depth of approximately eighteen inches. The catheter is then flushed with 5 to 10 cc of sterile water and a stopcock valve closed to establish the fluid contact. This procedure must be carried out using meticulous sterile technique. The opposite end of the catheter is then attached to a pressure transducer; the output is amplified and, ideally, displayed on a two-channel oscillograph in conjunction with the output from a cardiotachometer. In this manner the all-important changes in fetal heart rate pattern may be correlated directly with intrauterine pressure changes and viewed simultaneously.

The theoretical basis of this method is based on Pascal's law which states that in an enclosed fluid system the pressure, $P = \text{force (F)} / \text{divided by A (area)}$.¹⁵ The intact amniotic sac is a fluid system surrounded by a resilient muscle mass rather than by rigid walls and pressure is therefore a complex function of the contractility and elasticity of this muscle-mass. Rupture of the membranes creates another variable but establishment of the fluid column connecting the uterine cavity with the

pressure transducer provides a reasonably accurate means of recording.

Baseline tonus, frequency and amplitude of uterine contractions may be assessed in this manner. Apart from demonstrating relationship to fetal heart rate changes, characterization of contractions and interval uterine tone greatly aid in interpretation of deceleratory patterns. As mentioned previously heightened uterine tonus is often the cause of late deceleration in labors stimulated with oxytocics and visualization of this relationship renders treatment of this type of fetal distress simple.

Scalp Blood Sampling

Maternal acid base changes in normal pregnancy and labor consist of the following: hypocapnia occurs soon after the first missed period, pH gradually increases as term approaches with a corresponding decrease in base excess.¹⁶ There is little change in these values during labor but immediately after delivery there is a pronounced fall in pH and an increase in base deficit. This is thought due to a flooding of lactic acid into the maternal circulation from the myometrium.¹⁷ Within 24 hours post partum the hypocapnia of pregnancy has disappeared and the pH approaches non-pregnant levels. Studies have shown that induction of maternal acidosis with ammonium chloride need not necessarily result in fetal acidosis¹⁸ but it is suggested that a maternal blood sample be taken simultaneously when sampling fetal scalp blood to better interpret the fetal value.

The technique of fetal scalp blood sampling has been presented as a method designed to aid in monitoring the fetus during labor.^{19,20} The availability of an accurate micro method has helped to facilitate its use.²¹ The values obtained from scalp blood are intermediate between those values for true arterial and venous samples, and the validity of sampling capillary blood from a hyperemic area of scalp has been demonstrated.²² At present it is suggested that scalp sampling be reserved for use in situations in which an abnormal pattern has been observed during the course of

heart rate monitoring. It has been shown convincingly that changes in heart pattern precede metabolic changes in the fetus.²³

The fetus bleeds best during a contraction so the sample should be taken at the beginning of a contraction. The mother is placed in the lithotomy position, preferably in the delivery room, and a cylinder with a light source is introduced into the vagina to demonstrate fetal scalp. Ethyl chloride is sprayed on the scalp to create an area of hyperemia and a silicone gel solution applied to cause beading of the blood. The use of a scalpel blade or a forceps should be condemned because the blade on the instrument specially designed for scalp sampling has a guard to prevent penetration greater than 2 mm. A clean, heparinized glass tube is used to collect the blood and only 50 to 100 μ l of blood is required. The tube is quickly sealed, packed in ice, and transported by a waiting technician. Ideally, the blood gas determination should be performed right in the labor suite but the majority of obstetric units lack this capability. This inconvenience of transporting the specimen coupled with the obstetrician's frequent reluctance to penetrate the fetal scalp accounts for the comparatively few centers using this technique routinely. In addition, complications such as bleeding, neonatal scalp infection, and rare instances of breakage of the tip of the blade do occur. pH values obtained may be considered normal (>7.24), prepathologic (7.24 to 7.20) or pathologic (<7.19). The presence of a normal pH in labors with suspected fetal distress may allow a more conservative approach to avoid surgical intervention in these situations. The presence of a pH value in the prepathological range calls for another scalp vein sample immediately. The presence of a pH value in the pathologic range coupled with the persistence of an ominous fetal heart pattern calls for immediate operative intervention. The use of hypertonic glucose infusion to the mother or intra-amniotic infusion of bicarbonate, although beneficial biochemical changes may result, should probably not be considered definitive therapy at this time.

Fetal Electroencephalography

Perinatal brain damage with its associated physical and mental impairment constitutes both a social and economic burden to the community. At present the use of fetal electroencephalography is strictly as a research tool. Hopefully, its value in time will be as a marker of stressful events as they occur during labor and as reflected in electrical activity of the fetal brain. Intrapartum electroencephalography embodies differences in both techniques of use and principles of interpretation when compared to conventional adult uses.²⁴ Ordinarily ten to twenty electrodes are placed at specific anatomic sites on the scalp to record a wide area of electrical activity of the underlying cerebral cortex. Because of the size of the fetal head and the limitations imposed by cervical dilation, only two electronic sensors are applied to the fetal scalp and they are maintained by suction to minimize motion artifacts. A parietal location of at least one of the sensors is desirable because this overlies the area of most mature cortex with easily-recognizable complexes.

The fetal electroencephalogram relates to maturity and the processes of normal labor don't alter it. Unfortunately many electroencephalograms are contaminated with recordings of fetal heart rate. Hopefully, pattern interpretation will soon progress to the point of clinical applicability and another parameter of vital function will be measurable by the obstetrician prior to birth.

In the not-too-distant past the appropriate goal of an obstetrician was to deliver a live baby. Today our interest is much broader in scope and we must now focus on the quality of fetal life from conception to delivery. It is not inconceivable that in the near future our interests will broaden even further to include pre-conceptional means of improving fetal outcome. Admittedly, the status of methods of monitoring the fetus during labor has not yet progressed to the point of greatly decreasing perinatal mortality nor have these methods necessarily decreased the rate of primary ce-

sarean section. However, these are relatively crude measurements and if our aim is to improve the quality of life of each newborn, these methods provide us with greater insight as to how the fetus reacts to the stress of labor. To build upon these foundation blocks and develop sound therapeutic principles as to how best to aid the distressed fetus is the next logical step.

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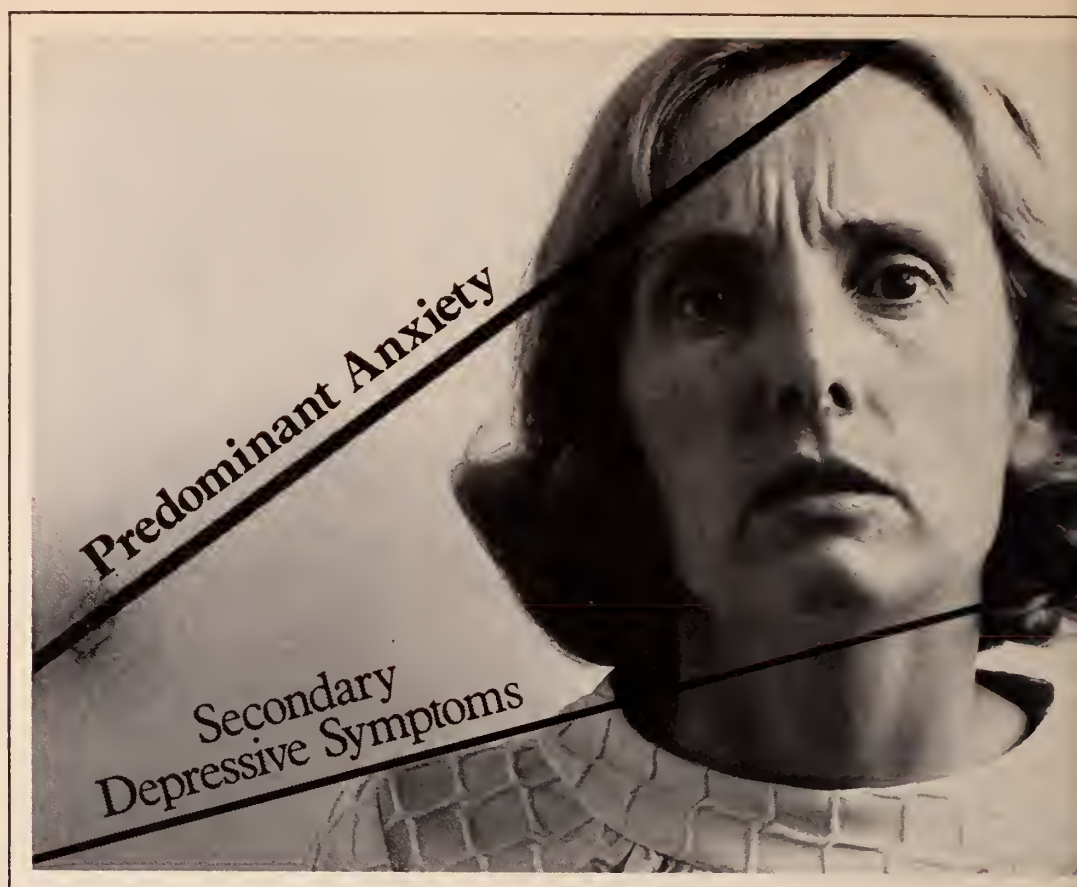
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William J. Chamberlain, Chief of New Jersey's program, estimated that 350,000 residents of New Jersey have an alcoholism problem at an annual cost to the State of \$500 million. The "hotline" staff is headed by Elinor Doyle, who has a master's degree in community mental health, and who worked as a rehabilitation counselor and psychiatric social worker before assuming her present position.



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**Alvin Langer, M.D., Cheng T. Hung, M.D.
and John Harrigan, M.D./Newark**

In recent years, there has been much interest in nutrition during pregnancy, particularly as to whether maternal malnutrition increases the incidence of obstetric complications or influences the immediate or long-term outcome for the fetus. Most of the information regarding fetal effects of maternal undernutrition comes from one of two sources. There have been a number of natural experiments, when, due to famine during war, decreased amounts of essential nutrients have been provided to pregnant women. There is also information available from animal experiments, in which essential nutrients have been withheld from the diet. Data of both types are beset with obvious difficulties. The human data is descriptive, and involves only circumstantial evidence, with no control of other variables. Obviously, essential nutrients cannot be intentionally withheld from the diet of pregnant women, in an attempt to evaluate the effect on the fetus. The animal data involves species which may have a different type of placenta, a different number of offspring per litter, a different ratio of fetal to maternal weight, and a different mean fetal growth rate. For example, the rat is used in many experimental series, and has a mean fetal growth rate of 0.25 grams per day as opposed to a mean growth rate of 12.5 grams per day for the human fetus.¹ The total litter in rats equals 25 per cent of the weight of the mother, whereas in the human it is only 6 per cent. Therefore, the establishment of an

effect of nutritional deprivation in rats does not necessarily imply a similar effect in the human. In fact, inadequate diets in experimental animals often reduce the birth weight 20 to 25 per cent, whereas in man under conditions of severe starvation only 5 to 10 per cent reduction in birth weight occurs.² Nevertheless, data of both types are so striking that we will review them in an attempt to understand possible effects of maternal malnutrition in the human fetus.

Mechanisms

Nutritional deficiencies may act upon the mother prior to conception, leading to abnormal developments of the bony pelvis, making vaginal birth impossible. Deficiencies may also result in anovulation, thereby preventing pregnancy. A pregnant adolescent, still in the process of growth and development, may, in effect, compete with the fetus for essential nutrients; it has been demonstrated that within the same ethnic group, child mothers have given birth to babies of much lower birth weight than those of adult mothers.³

Deprivation in animals has resulted in variable fetal outcomes, depending upon the experimental model. Winnick⁴ recently demonstrated that clamping the uterine artery of an experimental animal causes a reduction in size of fetal organs. The fetuses in that horn nearest the point of clamping show the most

*From the Department of Obstetrics and Gynecology, CMDNJ, New Jersey Medical School.

marked changes, with organs with the highest metabolic rates, such as brain, being least affected. In contrast, if essential nutrients are withheld from the diet of the same species, a reduction in size of all organs occurs, with brain affected as much as other organs. One may speculate the first situation is analogous to the hypertensive gravida. Indeed, when one looks at fetuses which are small for gestational age, one frequently finds that the brain has been spared, and is not reduced in size in proportion to reduction in size of other organs.⁵ Hypertension is a cause of such small fetuses, but there are other causes. These include fetal factors (chromosomal abnormalities, in utero viral infections, and multiple gestation), placental factors (infarction), and maternal factors (nutritional deficiencies). The latter group is often evidenced by low cord blood levels of essential amino acids and abnormalities of glucose metabolism.⁶

Effects of Specific Deficiencies

In the pregnant guinea pig, caloric restriction produces a marked decrease in birth weight, and even curtails the rate of cell division in the brain. If the offspring is fed normally after birth, it fails to recover normal length or weight. No parallel situation, under well-controlled conditions, has been described in humans, but it is known that the human with severe caloric restriction may break down fat, producing ketone bodies. There is some suggestion that maternal acetonuria, regardless of cause, may result in neuropsychologic defects in the offspring.⁷

Protein restriction in pregnant rats results in decrease in total DNA content of all fetal organs, including brain. This probably reflects a decrease in cell number.⁴ A parallel decrease in number of cells in the placenta occurs earlier in gestation than the changes in the fetus itself. These offspring, even if raised normally by foster mothers, demonstrate a permanent impairment of ability to utilize nitrogen, and decreased intellectual performance. Winnick described similar low cell numbers in placentas of an indigent population in Chile.⁸ There is no information as

to cell numbers of individual organs other than placenta, or resulting neurologic performance in the human.

During World War II, it was observed in Holland, when many pregnant woman had diets of less than 1000 calories and protein intake of 30 to 40 grams daily, there was approximately a 10 per cent average decrease in birth weight.⁶ A similar decrease was observed during the siege of Leningrad in 1942. However, in Britain, during the period 1940-1945, perinatal mortality dropped. This has been attributed to the fact that there was rare unemployment, and pregnant women were given priority in foods. Eastman,¹⁰ in 1968, reviewed approximately 1200 pregnancies, and found that the birth weight was proportional to weight gain during pregnancy and to prepregnancy weight of the mother, even though there was no relationship between prepregnancy weight and weight gain during pregnancy. In that series, total neonatal mortality for low birth weight infants was several times higher than for average weight infants, and maternal weight gain was the most important determinant of fetal weight other than gestational age.

The effects of folic acid deficiency during pregnancy are well known. In rats given folate deficient diets early in embryogenesis, there may be resorption of the fetus, hydrocephalus, cleft lip and palate, syndactylism, cataracts, and abnormalities of the respiratory and cardiovascular system.¹¹ In humans, large amounts of folic acid are transferred to the fetus, and are important in the production of DNA, RNA and in purine and pyrimidine metabolism. Although there has been some evidence that, in the human, subanemic folate deficiencies may result in fetal malformations, abortion, or abruptio placenta, this has not been a consistent finding.^{12,13,14} Folic acid antagonists have been administered to a few pregnant women either for therapeutic purposes or to induce abortion, and in the majority of these, an abortion ensued. In the remainder, the fetus showed major malformations.¹⁵

Large amounts of Vitamin B₆ are transferred to the fetus. Patients with toxemia of pregnancy have been shown to secrete increased amounts of xanthurenic acid, which indicates B₆ deficiency. It has been demonstrated that placentas of toxemic women contain only about a third the normal amounts of Vitamin B₆. A cause and effect relationship has not yet been established between toxemia and Vitamin B₆ deficiency.

Discussion

Patients who have been exposed to dietary deficiencies during pregnancy, because of socio-economic conditions, have frequently given birth to small babies, which may have a marked increase in perinatal mortality. The long range effect, particularly on intellectual performance, is not known, although there is a permanent impairment in animals subjected to low protein diet. This impairment is most likely related to a low number of total cells in the brain, an effect resulting from impairment of cell division caused by protein deficiency. Deprivation of calories and certain vitamins in animals may result in congenital anomalies. With the exception of the use of folic acid antagonists, such results have not been demonstrated in the human, but the possibility should be considered.

There has been ample demonstration that both maternal and fetal outcomes of pregnancy are best when the mother is well nourished and gains 22 to 30 lbs. Although specific effects of maternal nutritional deprivation need further clarification, the safest present course would appear to be to provide sufficient calories, protein, and other nutrients to provide the specific requirements of pregnancy.¹⁶ Since deprivation of essential nutrients may result in adverse effects upon the

fetus, pregnancy would not seem to be an opportune time for a weight reduction diet.

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WRITE FOR LITERATURE AND SAMPLES

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A rather large experience with twin pregnancies has been analyzed relative to perinatal mortality. Significant factors and recommendations are discussed.

Causes of Perinatal Mortality in Twins*

**Geza R. Kurtz, M.D. and M. Rao, M.D./
Jersey City**

To ascertain some of the causes of fetal wastage in twin pregnancy and delivery, a retrospective study of 37,212 live births between November 1963 and December 1968 at the Margaret Hague Maternity Hospital, Jersey City, was made. During this period, 390 sets of twins were delivered, a rate of slightly over one per cent. The case histories of 65 sets of twins, in which fetal loss occurred, were analyzed.

Perinatal Mortality

In 40 sets, both twins died, while one only was lost in the remaining 25 sets. The uncorrected perinatal mortality was 13.5 per cent.

Parity and Age

Primiparas incurred 15.2 per cent of the loss which was well below their proportional representation (23 per cent). One quarter of this loss occurred before the 28th week of gestation. In contrast, more than one half (51.6 per cent) of the loss in multiparas occurred before the 28th week of gestation, suggesting that primigravidas have a better chance to carry twins to viability than do their parous sisters. Grand multiparas under 30 had the poorest record—40 per cent of the total loss.

Age was significant inasmuch as 76.1 per cent of the loss occurred in mothers under 30, as contrasted with an incidence of 60 per cent of this age group in the total patient population during the period of investigation.

Complications of pregnancy

Twenty-six patients (36.2 per cent) had complications of pregnancy (toxemia 3, abruptio placentae 4, premature rupture BOW 11, placenta previa 1, pyelonephritis 2, previous cesarean section 5). This exceeded the rate of complications in single pregnancies. Half of the complications occurred before the 28th week of gestation and were associated with the loss of both twins.

Maturity and Weight

Of the 105 fetal casualties only 50 weighed 1,000 gm. or over. In the group weighing 2,000 gm. or more, the effect of birthweight on fetal outcome was not significant, suggesting that twins weighing more than 2,000 gm. can be considered mature. This corresponds with the fact that twins of a given gestational age tend to weigh less than singletons, and also that some mature twins are under the arbitrary weight limit of 2,500 gm.

Order of Birth

Among the 25 sets in whom only one twin succumbed, 16 second twins died as compared to only nine first twins. Before the 37th week of gestation this difference in survival in favor of the first twin was most impressive, after that, their chances were equal.

Presentation of the Second Twin

Of 23 second twins lost whose birthweight was between 1,000 and 2,000 gm., 15 (65.2 per

*From the Margaret Hague Maternity Hospital, Jersey City.

cent) were delivered from an abnormal presentation. This is greater than one anticipates in second twins, indicating an increased birth hazard due to malpresentation. The second major cause of perinatal mortality in twins is abnormal presentation.

Sex and Zygosity

For every three girls four boys perished, showing greater viability among females. No effort was made to determine zygosity. Among the 40 sets where both twins died, sex was mixed only ten times (25 per cent). This figure, compared with an over-all incidence of 36.2 per cent of mixed sex, suggests a greater rate of loss among monozygous twins.³

Discussion

Experience shows that early diagnosis of twinning and institution of complete bed rest at the hospital, if necessary, will reduce fetal wastage from prematurity in twin pregnancy. An acceptable alternative to this costly procedure is weekly examination of the patient for signs of early effacement and/or dilation of the cervix, with hospitalization if either of these are found. Bed rest is continued until viability is reasonably assured (35 weeks), especially in multiparas with relative cervical incompetence.

Carrying twins to viability successfully, especially in multiparas, is related to early diagnosis which, alas, is not often the case. The introduction of newer techniques, such as ultrasound, hopefully, will change this.⁵

Whenever there is discrepancy between estimated and actual uterine size, i.e., the uterus is found to be larger than expected, the patient's menstrual dates should be accepted until proved wrong.

In the premature group, a disproportionately large number of second twins born by the breech presentation was lost. It is, therefore, suggested that internal podalic version and extraction as a method of choice for the delivery of the second twin be abandoned² and

whenever feasible delivery be accomplished as a vertex.¹

In mature babies the order and/or method of delivery did not significantly influence fetal outcome. With the exception of one second twin delivered by internal podalic version and extraction, perinatal mortality in mature twins was related to complications of pregnancy and labor.

The influence of other related factors, such as method of delivery (other than breech), interval between delivery of twins, and type of anesthesia, on perinatal mortality in twins has been omitted from this discussion.

Summary

The principal causes of perinatal mortality in twins were immaturity and abnormal presentation in prematures. The rate of fetal loss during the second trimester was two times greater in multiparas than in primiparas due to a relative cervical incompetence. Premature second twins, males, and monozygous twins experience an increased birth hazard.

It is felt that perinatal mortality in twins can be reduced by:

- Early detection of ominous cervical changes.
- Institution of complete bed rest if the latter occur.
- Elimination of elective internal podalic version and extraction for delivery of the second twin.
- Delivery of the second premature twin as a vertex whenever feasible.

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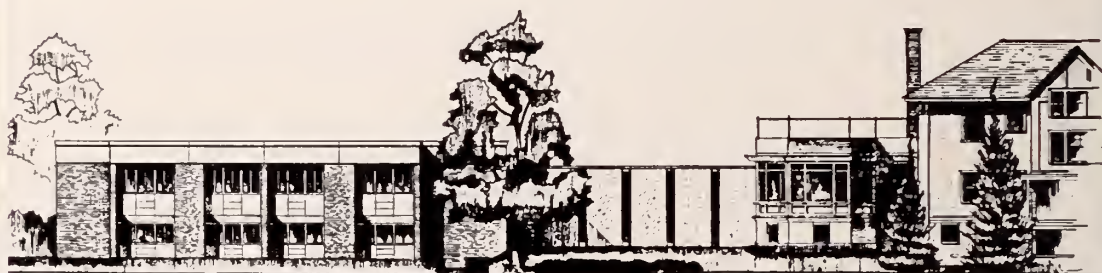
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Methyltestosterone N.F. -25, 10, 5 mg.

For the treatment of impotence due to androgenic deficiency in the male.

DESCRIPTION: Methyltestosterone is 17 β -Hydroxy-17-Methylandrosta-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunuchism. 2. Male climacteric symptoms when these are secondary to androgenic deficiency. 3. Impotence due to androgenic deficiency. 4. Postpubertal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. In the male: Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpubertal cryptorchidism, 30 mg. **HOW SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250.

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Laparoscopy, in the hands of an expert has added a safe and effective new dimension in diagnosis and treatment of pelvic organ conditions. This experienced author herein shares a sizeable experience with us, including major and minor complications.

Laparoscopy in a Community Hospital

Paul Grossbard, M.D./Passaic

"Look beneath the surface; let not the several quality of a thing nor its worth escape thee."

Marcus Aurelius Antonius
(A.D. 121-180)
Meditations IV 27

In a relatively short period of time in this country, gynecological laparoscopy has gained tremendous popularity. It has made interval sterilizations fairly easy and inexpensive, and it is serving as an invaluable adjunct in diagnosis and fertility studies. As experience is developed, other operative laparoscopic procedures will be performed.

It is not my purpose to review the history, techniques, or instrumentation of laparoscopy. These have been adequately covered by Steptoe¹ and Cohen² in their monographs and by many others in the German, French, and American literature.

The great majority of reports on laparoscopy have come from the larger teaching hospitals and clinics. Since it is essential that every community hospital have at least one good laparoscopist, it is my intention to review this procedure in such a hospital. Many courses are given throughout the country over a two to three day period of time. Only the basic principles of laparoscopy can be learned in this brief course of instruction. To become really skilled requires the performance of many laparoscopic procedures. No one should attempt solo laparoscopy following these short courses. The first 15 to 25 cases should be performed with a skilled laparoscopist at the operating table, and they should be strictly

for diagnostic studies. Only when dexterity has been mastered in the use of the new sophisticated instruments required, should he proceed to operative laparoscopy.

This report covers 568 consecutive laparoscopic procedures performed by the author; 301 were performed for interval sterilizations, and 267 were performed for diagnostic and therapeutic purposes. The chief indications for diagnostic laparoscopy were pelvic pain, acute and chronic, questionable mass, and infertility.

Anesthesia

All patients were admitted the afternoon before surgery. The abdomen was prepped, and the patients were given an enema and sedation at bedtime. All procedures were performed under general anesthesia with intratracheal intubation and controlled ventilation.

The anesthesiologist must be especially knowledgeable in laparoscopic anesthesia. The deep Trendelenburg position, as well as the instillation of carbon dioxide into the peritoneal cavity, will produce splinting of the diaphragm, pressure on the inferior vena cava, and elevation of the $p\text{CO}_2$. Hypercarbia can produce cardiac arrhythmia. Consequently, patients are put on the cardiac monitor from the onset of anesthesia until they react, and are taken to the recovery room.

Instruments and Method

The standard two-puncture technique was used. The Verres needle was used for estab-

lishing a pneumoperitoneum with carbon dioxide. A Wisap-Semm insufflator was used to obtain a controlled flow of carbon dioxide with normal pressure. Most patients required three liters of carbon dioxide. An 8 mm 180° Wolf* laparoscope was used. This instrument was decided upon because it could be used for still photography, although a 5 mm laparoscope can be just as useful. The 10 mm laparoscope was discarded because of reported complications of omental hernia, following its use.^{3,4} The second puncture was made with a 5 mm pyramidal trocar covered by a fiber glass sleeve. Following the removal of the trocar, a calibrated probe was used in the manipulation of the pelvic organs to allow better visualization and to move the intestines out of the operating field.

To mobilize the uterus a tenaculum is attached to the cervix, and an acorn cannula is inserted into the cervix and attached to the tenaculum. For the sterilization procedure the Cohen modification of the Palmer drill forceps was the choice in all cases. The fallopian tubes were coagulated about 2 cm from the cornual ends, and then transected. No attempt was made to remove a piece of tube for pathological study. Puncture sites were closed with skin clips.

Results and Discussion

Table I shows the results of diagnostic and infertility laparoscopies. Laparotomy was performed at or shortly after laparoscopy in 41 cases, as shown in Table II. Laparoscopic surgery, that is, lysis of adhesions, aspiration of ovarian cysts, coagulation of endometrial implants, and removal of an IUD was done in 54 cases. Excluding the infertility and the amenorrhea group, 239 patients had diagnostic laparoscopies for pain and/or pelvic mass. Thus, 200 patients were spared exploratory laparotomy with its known sequelae. This ability to see the pelvis with the laparoscope was especially valuable in the patient who is tense, difficult to examine, or obese and in whom the pelvic findings are not definitive.

*Wolf Instrument Co., Rosemont, Illinois

Table I
Results of Laparoscopy in Diagnosis and Infertility

		No. of Cases
1. Endometriosis		41
2. Pelvic Inflammatory Disease		45
3. Pelvic adhesions following previous surgery		36
4. Ovarian cysts—unsuspected		23
Follicular/Lutein	19	
Dermoid	2	
Ruptured	2	
5. Fibroid uterus—unsuspected		9
6. Appendicitis		5
7. Perforation of uterus following D & C		1
8. Hypogonadism		4
9. Sclerocystic ovaries		3
10. Possible ectopic pregnancies		12
Unruptured	4	
Ruptured	2	
Normal pregnancy	6	
11. Perforated IUD		1
12. No pathology		87
	Total	267

Table II
Major Procedures Performed Following Laparoscopy

		No. of Cases
1. Total abdominal hysterectomy with or without bilateral salpingo-oophorectomy		23
Endometriosis	7	
Chronic P. I. D.	12	
Fibromyomata uteri	2	
Dermoid cysts	2	
2. Ovarian resection		3
Endometriosis		
3. Laparotomy for tubal ligation		3
4. Salpingectomy		6
Unruptured ectopic	4	
Ruptured	2	
5. Appendectomy		5
6. Suture perforated colon		1
	Total	41

It was of interest to note that of 87 patients in whom "no pathology" was found, 21 reported complete relief of pelvic symptoms. Since many neurotic women have symptoms referable to the pelvic organs, it is most important to rule out pathology in this group. It was surprising how many times these so-called "neurotics" had organic pelvic pathology. Of 54 patients who had definitive laparoscopic surgery, 33 reported relief of symptoms.

Three hundred and one interval tubal sterilizations, including 14 combined with therapeutic abortions, were performed. All sterilizations were performed either in the prolifer-

ative phase of the menstrual cycle or while the patient was still on oral contraceptive pills or was still wearing an intrauterine device. There have been no failures in two years of follow-up but this is still too short a period of time to really evaluate. The literature³ reports 0.2 per cent failure rate in this method of sterilization.

The advantages of this method are quite obvious:

(1) Rapid return of the patient to her household. Patients are usually discharged the morning following surgery and instructed to resume full household activities.

(2) Less postoperative pain than the standard Pomeroy technique, requiring laparotomy.

(3) Cosmetic results are markedly superior to a scar from a laparotomy; within six months the scars are barely visible.

Complications

There were 28 complications in the 568 reported cases, an incidence of 4.9 per cent. These included four major complications (0.7 per cent) and 24 minor complications, (4.2 per cent) as described in Table III.

There were no cases of delayed bleeding, although this has been reported by others.⁵ All cases of mesosalpingeal bleeding were controlled during laparoscopy by electrocoagulation.

The technical failures in the sterilization procedure were the result of:

(1) Failure to establish a pneumoperitoneum in an obese female.

(2) An unsuspected pelvic inflammatory disease with tubointestinal adhesions.

(3) Acute antelexion of the uterus from dense adhesions to the anterior parietal peritoneum, following three previous cesarean sections.

One patient who bled from the umbilical incision required resuturing of this area. The patients with subcutaneous emphysema and superficial wound infections were of no serious consequence.

Electrical burns of bowel, skin, and other parts of the body have been reported.^{6,7,8}

There were none in this series. This can be ascribed to constant vigilance and inspection of all instruments used in this procedure from the outlet in the wall to the tip of the operating instrument. This, of course, includes all the intervening apparatus. The use of a fiber glass sleeve for the second puncture as well as a fully insulated Cohen-Palmer forceps will also aid in the prevention of these burns. Adequate Trendelenburg position, pushing the intestines out of the pelvis with the probe, and adequate "tenting" of the fallopian tube prior to coagulation will greatly help in preventing the bowel burns which are being reported following tubal fulguration.

Table III
Complications of Laparoscopy

		No. of Cases
1. Major complications		4
Mortality—cardiac arrest	1	
Respiratory embarrassment—due to faulty intubation	1	
Perforation of transverse colon	1	
Thyroid crisis	1	
2. Minor complications		24
Mesosalpingeal bleeding	12	
Technical failures (in tubal sterilizations)	3	
Abdominal wall hematoma	1	
Postoperative bleeding from infraumbilical incision	1	
Subcutaneous emphysema	3	
Wound infections, superficial	4	
Total		28

We have found it invaluable, although expensive, to have duplicate operating instruments, including fiber optic cords and connecting cables. Mechanical and electrical failures do occur, and the ability to rapidly substitute one instrument for another will enable the operator to complete the procedure once it has started. It is the responsibility of the operator to be sure that the bladder is catheterized, that the patient is in the optimum position on the operating table, and that the grounding plate is securely fastened to the patient. My personal preference in operative laparoscopy is the dorsal Trendelenburg position, rather than the modified lithotomy position.

Of the four major complications listed in Table III, three occurred during diagnostic laparoscopy and two of the major complications were due to anesthesia.

Contraindications to Laparoscopy

There are several contraindications to laparoscopy. These include general peritonitis, ileus, and difficulty in establishing an adequate pneumoperitoneum. Many authors cite obesity and previous surgical procedures as contraindications, but the experience in this series of cases does not bear this out. Of five women weighing between 250 and 275 pounds, four successful laparoscopic sterilizations were performed.

Conclusions

Gynecological laparoscopy for interval sterilization, diagnosis, and the performance of therapeutic procedures has been an exciting advance in our specialty. The complication rate is low. The ability to arrive at an accurate diagnosis has saved many women from unnecessary exploratory laparotomy.

However, "Band-Aid"® surgery is not for "Band-Aid"® surgeons. The laparoscopist must

be well trained in all gynecological procedures and must be prepared for immediate laparotomy, should the need arise at the time of laparoscopy.

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162 Lexington Avenue

Heroin Addicts Set Own Schedules for Withdrawal

Heroin addicts are more successful in kicking the habit if they are permitted to set their own schedule for gradual reduction of the dosage, says a study reported in a current (September) issue of *Archives of General Psychiatry*. The study was carried out at Boston City Hospital Drug Detoxification Unit by Anthony E. Raynes, M.D., and Vernon D. Patch, M.D., of the Department of Psychiatry, Harvard Medical School.

Two methods of detoxification were administered to 149 heroin addicts—a self-determined reduction schedule, and a standard physician-administered schedule. Twice as many of the self-regulated group completed detoxification as the physician-controlled group.

The study was designed to find a method to increase the completion rate of detoxification among heroin addicts treated on an ambulatory basis. It was pointed out that all known methods of treating heroin addicts have high failure rates. Methadone maintenance programs are better than some others but 50 per cent of the addicts in these programs drop out within 24 weeks.

A part of the treatment program involved group therapy. "It is of interest that during the group-therapy sessions, the addicts stated that they felt more 'involved' with their treatment and that they did not feel that they were 'victims' when they were permitted to regulate their own withdrawal schedule."

Dr. Koch and his associates have concisely reviewed a complex subject. Some of the material is controversial, but all of it is relevant.

Special Article

Diabetes in Pregnancy: A Review and Survey

Peter Koch, M.D., Caterina A. Gregori, M.D., and James L. Breen, M.D., Livingston*

With the Nobel Prize-winning discovery of insulin in 1921 by Banting and Best, the management of diabetes was revolutionized, and a new type of patient came into existence. Until then the pregnant diabetic was considered a medical curiosity.

The rarity of pregnancy in diabetes, in the pre-insulin era, has been ascribed to such factors as death of young diabetics before they reached child-bearing age and amenorrhea in those who did. The incidence of amenorrhea was as high as 50 per cent. Since the use of insulin, several authors have noted very little or no decrease in the fertility of diabetic patients.^{3,4}

The marked increase in the frequency of pregnancy in diabetes is due to other factors in addition to the increase in life span and fertility of diabetics. Successful pregnancies have enhanced genetic transmission of diabetes, while interest in diabetic detection has alerted all physicians, including obstetricians, to look for hyperglycemia and glycosuria. The dietary and social habits of this country have led to a greater prevalence of obesity, which is an additional diabetogenic factor.

Although the detection of hyperglycemia and control of blood sugar does nothing to change the basic genetic defect in diabetics, it has been repeatedly demonstrated that control of diabetes during pregnancy will improve both maternal and fetal morbidity and mortality.

Carbohydrate Metabolism in Pregnancy

It is often stated by patients that they "weren't diabetics until they became pregnant," which is another way of stating that gestation may unmask a diabetic tendency. Nature has provided in the pregnant state

itself the means of early diabetes detection, while it has long been recognized that known diabetics will require more insulin to maintain carbohydrate homeostasis which becomes altered by the hormonal factors associated with pregnancy.⁵

Gestation introduces many variables into the maintenance of carbohydrate homeostasis. First of all, it is known that the fetus is solely dependent on maternal glucose for his energy requirements, since enzymatic capacity for glucose synthesis from non-carbohydrate precursors, that is gluconeogenesis, is not developed in the fetal liver.⁶ Glucose reaches the fetus via a facilitated transport mechanism.⁷ The same is not true for insulin, which is manufactured by the fetal pancreas, while maternal insulin does not transverse the placenta in significant quantities.⁶ These factors serve to decrease insulin requirements in the pregnant diabetic, a fact which has been observed. Additionally, some authors have suggested that human chorionic gonadotrophin, which is secreted in great amounts early in pregnancy, may also contribute to the amelioration or improvement of diabetes seen in early pregnancy.⁸

However, as the gestation progresses, insulin requirements generally rise: and in fact, it has been noted that even in non-diabetic individuals, high levels of circulating insulin are required to maintain normoglycemia in the later stages of pregnancy. A number of anti-insulin factors have been investigated in relation to insulin requirements. Growth hormone and thyroid hormone do not seem to be

*Dr. Koch is Resident, Department of Obstetrics and Gynecology, St. Barnabas Medical Center, Livingston, where Dr. Breen is Director of that department and Dr. Gregori is Assistant Director.

implicated, since they are not secreted in increased amounts during human pregnancy.^{9,10}

Cortisol, which is frequently noted to be elevated, has also been suspected of contributing to the diabetogenic effect of pregnancy. Increased excretion of corticosteroids is usually not seen during gestation, while cortisol binding globulins are elevated, therefore much doubt exists as to whether *active* cortisol is actually increased in pregnancy.¹² Furthermore, doubt also exists as to whether steroid production is actually increased during either normal or diabetic gestation or whether cortisol levels are higher in the diabetic than in the normal pregnancy.⁷

On the other hand, the sex steroid hormones, estrogen and progesterone, *are* present in increased quantities during gestation and probably contribute toward impaired glucose tolerance. Certainly, the role of estrogen in deteriorating carbohydrate tolerance has been shown, but the means by which this is accomplished is unclear; estrogen may exert a direct effect or it may act as a potentiator of the biological activity of cortisol.^{13,14} Progesterone is less striking in its effect on glucose tolerance than is estrogen; it may add to the diminution of the peripheral effectiveness of insulin, although not all authors have found this to be true.^{15,16}

Another hormonal factor contributing to the diabetogenic effect of pregnancy is human chorionic somatomammotrophin, also called human placental lactogen. This is a polypeptide closely resembling growth hormone which is secreted by the syncytiotrophoblast, primarily in the later stages of gestation.¹⁷ Most investigators accept this as a major determinant in the deterioration of carbohydrate homeostasis noted in pregnancy, just as almost all recognize the placental breakdown of insulin by its potent insulinase as a contributor toward this same effect.⁶

In summary, transport of maternal glucose without insulin to the fetus, as well as an increased maternal secretion of human chorionic gonadotrophin, help to explain why

the insulin requirements of gravid diabetics may decline initially. However, as gestation progresses, the increased levels of placental lactogen, estrogen, and probably progesterone, as well as placental insulinase, serve to reverse this effect and cause a deterioration of carbohydrate homeostasis.

These factors are present in all pregnancies, but it seems to be those patients with an inherent genetic defect in insulin production or release who become gestational diabetics due to the inability of the pancreas to meet the additional demands of gravity. It is this group of latent or gestational diabetics that needs to be identified since early detection and treatment may improve the outcome of their pregnancies.

Clinical diabetes is a genetically determined disorder of metabolism which is easily recognized. However, most investigators agree that diabetes can be recognized without fasting hyperglycemia and that this is the most common recognizable form of the disease.¹⁸ The means of this early detection is the glucose tolerance test (GTT). Numerous glucose levels, with varying degrees of accuracy, have been cited by different groups as indicative of impaired glucose tolerance. The United States Public Health Service criteria are reliable, with 52 per cent of individuals identified by these standards going on to develop overt diabetes.¹⁸

A standard preparation for a standard oral GTT is necessary. After an overnight fast, a fasting glucose specimen is drawn and then blood is collected at 1, 2, and 3 hour intervals after ingestion of 100 gm. of glucose. A point system is used for interpretation of results (Table I). When the values exceed the levels stated, the indicated point value is accorded

Table I
U.S.P.H.S. Criteria

	Blood Glucose		Point Value
	Nonpregnant	Pregnant	
Fasting	110	90	1
1 Hour	170	165	1/2
2 Hour	120	145	1/2
3 Hour	110	125	1

and a total of two or more points is indicative of diabetes.

While only 21 per cent of patients who meet these criteria go on to develop overt diabetes, more than 80 per cent of them will show a diabetic tendency as measured by a positive prednisone GTT in the nongravid state.²⁰

Such figures are interesting and speak strongly for routinely testing all pregnant women for diabetes, despite the fact that the results will be negative in 90 to 99 per cent of cases.^{14,21,22}

Some investigators have found it practical to select patients for glucose tolerance testing, but even with such selection, the rate of positive glucose tolerance tests is usually about 10 to 20 per cent, although it has reached 70 per cent.^{14,22,23,24} The criteria for selection are: (1) family history of diabetes; (2) personal history of diabetes or previous abnormal GTT; (3) obesity; (4) history or presence of toxemia or hydramnios; (5) presence of glycosuria; (6) history of previous birth of a large baby (more than 9 lbs.); (7) history of unexplained fetal wastage (habitual abortors and especially stillbirths) or neonatal mortality; (8) history of serious congenital anomalies.

Of the various selection factors, the personal and family history are most important. Several authors have observed a 10 per cent yield of positive glucose tolerance tests in patients having only glycosuria, while the presence of another factor increases the chances of a positive GTT. Although it is indeed controversial, some investigators favor intravenous GTT over an oral test, since the former circumvents the purported delayed gastric emptying time of pregnancy, as well as obviating the nausea and vomiting sometimes provoked by the oral test.^{24,26,27} The intravenous test always presents the same glucose stimulus to the pancreas, with test results being conveniently expressed as a single numerical index of tolerance.²⁷ Furthermore, the test may be modified to one of shorter duration without a marked change in reliability.²⁶

On the other hand, proponents of oral testing note that such testing employs a more physiologic route, which will stimulate glucagon as well as insulin release. The long-established criteria of glucose tolerance testing in the non-gravid state may be compared favorably with testing done during pregnancy. Some investigators question the evidence showing a delay in gastric emptying in pregnancy, and propose that the intravenous test may miss the more subtle diabetic tendencies. Since the greater and more sustained release of insulin following intravenous administration of glucose may overwhelm the mechanism of placental insulin degradation, a normal fall in blood sugar may occur despite a functionally inadequate insulin reserve.²⁸ Furthermore, the unphysiologic level of blood sugar attained by intravenous infusion, coupled with the low renal threshold of glucose reabsorption so common in pregnancy, may result in an unusually marked loss of sugar in the urine and resultant lowering of blood sugar.²⁴

Although the question is not completely settled, it appears that the oral GTT *should* be the more reliable one. Benjamin has performed both oral and intravenous GTT's on 200 selected pregnant women and found that the oral test was almost invariably abnormal if the intravenous test was abnormal. The reverse was not always true: 79 out of 140 patients with impaired oral tolerance showed normal tolerance by intravenous testing.²⁴

Benjamin has also shown that if oral and intravenous GTT's done during pregnancy are followed up with cortisone glucose tolerance tests after pregnancy, the false positive rates will be 10.6 per cent and 4.3 per cent respectively for oral and intravenous tests, whereas the false negative rates will be 10 per cent and 47 per cent respectively.²⁰ Thus, it is clear that oral GTT has a slightly higher chance of "overdiagnosing" carbohydrate intolerance, while gaining a significant population that would have been missed if intravenous testing alone were performed. It seems better to label a normal patient as being a gestational diabetic and subject her pregnancy to greater scrutiny than to miss a

potentially dangerous situation by labeling a gestational diabetic as normal.

All authors recommend that testing, if originally negative, be repeated during the later stages of pregnancy, when the anti-insulin factors discussed earlier will be at their peak. Lowered renal threshold of glucose reabsorption in pregnancy should be recognized and the patient should not be labeled diabetic on the basis of glycosuria alone.^{29,30} It should also be noted that an occasional patient may show a higher renal threshold for glucose, therefore, a patient with high risk factors should not be denied a glucose tolerance test simply because she does not demonstrate glycosuria.³¹

Long-term follow-up of diabetics diagnosed by the tests described above continue. Early results show a 20 to 30 per cent incidence of overt diabetes but further studies are needed.

Effect of Pregnancy on Diabetes

Short term effects of pregnancy on diabetes may include hypoglycemic reactions if the "morning sickness," so frequent in the first trimester, reduces food intake and the patient fails to decrease her insulin dosage. Furthermore, the drain of maternal glucose by the rapidly growing fetus may also require a reduction of insulin dosage. Should the patient experience hyperemesis gravidarum, a significant starvation ketosis may result and eventually lead to diabetic ketoacidosis.

A major stress on carbohydrate metabolism in the later trimesters is the anti-insulin hormones, especially human chorionic somatomammotrophin, with their marked carbohydrate sparing and lipolytic effects.² In the later stages of gestation, insulin requirements usually need to be increased to prevent ketoacidosis. During labor, however, the profound muscular exercise and lack of dietary intake demands a marked reduction in insulin requirements. After the placenta is delivered, a further reduction in insulin dosage may be required in the labor

room and the puerperium to avoid hypoglycemic episodes.

Infection during pregnancy has an effect on diabetes. Kass and others found asymptomatic bacteriuria to be present in 6 to 7 per cent of pregnant patients, although the rate is probably lower in a non-indigent population.^{33,34} Kass has also shown an 18 per cent incidence of asymptomatic bacteriuria in diabetic patients, so one can surmise that the rate in pregnant diabetics is even higher. Bacteriuria must be carefully searched for in all pregnant diabetics to reduce the incidence of pyelonephritis and the ketoacidosis so often accompanying it. There is little evidence as to the long-term effects of gestation on the microangiopathic and neuropathic complications of diabetes. Although there is an increased incidence of toxemia and polyhydramnios seen in diabetic pregnancies, the long-term effect on diabetes is uncertain.

Another finding is the increased incidence of diabetes associated with increasing parity.^{2,6,7} Tyson, who believes that repeated exposure to the abnormal metabolic effects of pregnancy leads to an earlier onset of diabetes, recommends limitation of family size and approves primary sterilization after two live births, even for the woman with only a strong family history of diabetes.⁶ Furthermore, he recommends interruption of pregnancy and sterilization of patients with severe progressive angiopathy. However, several older reports showed no increase in vascular disease of diabetic multipara as opposed to primipara.^{35,36} Nonetheless, if renal disease is present, most authors advise the discouragement of pregnancy since progression of nephropathy is the usual experience.³⁷

Hypertension in the gravid diabetic in the first or second trimester is considered to be secondary to vascular changes induced by diabetes, and therefore, an effect of diabetes on pregnancy. However, hypertension appearing in the third trimester is attributed to the pregnancy, that is, toxemia.

Hydramnios and macrosomia are clearly ac-

cepted effects of diabetes on pregnancy. Hydramnios rarely causes any long-term effects on the mother, but macrosomia is associated with maternal morbidity and mortality, if Cesarean section is needed. The incidence of postpartum hemorrhage is greater in pregnant diabetics than in the general obstetric population.

So far as over-all mortality is concerned, it is generally agreed that uncomplicated diabetes does not increase the risk of maternal mortality associated with pregnancy. Maternal morbidity, however, is increased. Likewise, fetal morbidity and mortality appear to be adversely affected by maternal diabetes, the degree being dependent on the classification of the patient's diabetes.³⁸

The management of diabetes in pregnancy may be determined by the classification of White:³⁸

Class A—glucose tolerance test diabetics

Class B—onset of diabetes over age 20; duration of diabetes 0-9 years; vascular disease - 0

Class C—onset of diabetes ages 10-19 years; duration of diabetes 10-19 years; vascular disease - 0

Class D—onset of diabetes under age 10; duration of diabetes 20 or more years; vascular disease present, calcification in legs, retinitis

Class E—same as Class C, but also with calcified pelvic vessels

Class F—same as Class D, but also with renovascular disease

Class R*—same as Class D, but also with proliferative retinitis

*Class R has been added by various authors, and is not in White's original classification.⁶

Some authors find fault with this classification, suggesting that it is not practical to x-ray the legs and pelvis of all pregnant diabetics. White's classification, however, is valuable from a number of viewpoints. Her initial article and classification called attention to the problem of the diabetic pregnancy and stimulated further investigation to evaluate the outcome of diabetic pregnancies. The use of the White classification, which subdivides diabetics by severity, permits a more meaningful and comparable evaluation of fetal outcome.

The management of diabetes in pregnancy

according to this classification is basically diet alone for Class A, and diet and insulin for all other classes. Some authors favor the use of insulin even in Class A patients; others have found that this does not improve perinatal mortality, although it may lessen the incidence of macrosomia.^{49,50,51,52} Diet therapy is the mainstay of all diabetic treatment and is especially important to control weight during pregnancy. A low sodium diet based on 30 calories per kilogram of ideal body weight, with protein content of 1.5 to 2 grams per kilogram, 40 to 50 grams of fat, and the remainder in carbohydrate, is prescribed. The use of oral hypoglycemic agents is not approved since their teratogenicity is uncertain.^{2,7}

As in the non-gravid state, the general aim of treatment is to avoid hypoglycemia and ketoacidosis, and to maintain blood glucose within acceptable levels, which some authors feel should be in a narrower range in the pregnant state. Hypoglycemic episodes, which are usually rapidly reversed, probably have no detrimental effect on the fetus, but ketoacidosis is considered responsible for a high incidence of stillbirths.^{31,41} Equally important in management is the need to search for and treat infections, and other complications such as toxemia, hydramnios, vaginitis, and so on.

The pregnant diabetic will require very close supervision during the prenatal period by an internist to adjust insulin and diet, and to arrange hospital admission, at various stages of pregnancy, to evaluate and regulate control.^{6,31,41} Frequent blood sugar determinations are the only reliable means to evaluate control and the only reliable basis on which to alter insulin dosage. Where this is impractical, and dosage must be regulated on the basis of glycosuria, it is imperative that each individual patient be studied to determine her renal threshold for glucose. Tyson also emphasizes the psychological management of the pregnant diabetic, suggesting the use of tranquilizers and counseling when needed.⁶

Another modality to be considered is the use of hormone therapy. Authors from the Joslin

Clinic have stressed the use of estrogen and progesterone prophylactically, in an attempt to correct "hormonal imbalances" and improve fetal salvage.^{38,42,43} However, other authors have failed to demonstrate such effectiveness and ascribe the improved neonatal survival attained at the Joslin Clinic to the excellent patient care given at this institution, rather than the effect of hormones. Differences in dosage regimens, variation in numbers of patients not treated with hormones, and other factors, make comparisons difficult; the question of hormonal therapy is not fully settled. As more authors collect statistics of fetal salvage without the use of hormones, the trend has been to discredit their efficacy.^{39,47,48}

Labor and Delivery

Most authors agree on the medical management of diabetes during labor, however, there is much controversy concerning the timing and route of delivery. Evaluation of fetal maturity is critical to the timing of delivery. Irregular menstrual cycles and inexact dating of the last menstrual period, coupled with inaccurate estimates of fetal maturity based on the estimation of uterine size, timing of quickening, the audibility of fetal heart tones, and the recognition of fetal epiphyses, probably caused obstetricians to do Cesarean sections earlier than necessary. Now, better estimates of maturity can be based upon the determination of fetal size by ultrasonography and the results of cytology, creatinine, and bilirubin levels and lecithin/sphingomyelin ratios of amniotic fluid. Amniocentesis should be utilized whenever fetal maturity is in doubt, especially since fetal size may be confusing due to macrosomia associated with diabetes.

Once fetal maturity has been demonstrated, most authors would elect to deliver by induction or Cesarean section, if spontaneous labor does not ensue by 38 weeks.^{22,53,54} This is especially important in the more advanced White classes, where delay may result in a stillbirth. As pregnancy progresses, the chances of stillbirth and obstetric complications (abruptio, shoulder dystocia, and so

forth) are increased.^{7,41} However, for Class A patients, some investigators prefer to await spontaneous onset of labor rather than induction at 38 weeks, unless obstetric complications arise.⁴⁷

To assess the fetal status, multiple tests have been used to evaluate imminent fetal death in utero. Urinary levels of human placental lactogen have been measured, but have not been found useful in determining fetal well-being.^{55,56} Likewise chorionic gonadotrophin, progesterone, and heat-stable alkaline phosphatase levels have not been rewarding in predicting survival.⁵⁷ However, many authors have found the measurements of urinary estriols to be of value in evaluating fetal homeostasis.

Estriol is synthesized by the placenta from preformed steroid precursors which reach the placenta from the maternal and fetal bloodstreams with the most significant percentage of estriol being formed by the placental aromatization of 16-alpha-hydroxydehydroepiandrosterone derived from the fetus. Urinary estriol level is affected by fetal size, renal function, pre-eclampsia, and other factors.⁵⁹ When urinary levels are relied upon, simultaneous creatinine levels must also be measured, and care is essential to assure accurate collection of the 24-hour urine specimen. If a lower than expected urine value is seen, measurement of plasma estriol is indicated.

Most investigators strongly stress the importance of a normal estriol value, equating this with fetal well-being.^{48,57,58,59,60} A value of 12 mg. per 24 hours has not been associated with fetal loss. Greene and Touchstone, however, have found that during the last six weeks of gestation, no infant survived in utero for more than 48 hours when estriol levels were less than 4 mg/24 hours.⁶¹ Values between 4 and 12 are in the borderline zone and may indicate fetal jeopardy, especially if there has been a drop from a higher estriol level in the same patient. However, it must also be recognized that there is a tremendous day-to-day variation in estriol excretion. One series showed an average daily variation of 12 per

cent with a range of 0 to 35 per cent; these authors considered a fall in estriol indicative of fetal jeopardy only when a drop of 40 per cent from the previous level was detected.⁶⁰ Thus it seems that a high estriol level assures fetal well-being, and a low level or a falling level probably indicates fetal jeopardy. Some investigators recommend early delivery of diabetic patients even if estriol levels remain high, based on the observation that estriol levels can fall precipitously. Unless obtained daily, which is not economically feasible, urine estriol values may be obtained too late to avoid fetal death.⁵⁴

Just as the optimum timing of delivery is a matter of controversy, so is the method of delivery. Most authors, after the decision to deliver the fetus is made, will attempt induction of labor if the cervix is favorable and there are no obstetrical contraindications. However, some authors recommend elective section immediately because a non-productive induced labor may be harmful to the fetus and obstetrical complications, such as shoulder dystocia, cannot always be predicted.⁴¹ In one study, comparing 10,000 vaginal deliveries, and 1,000 abdominal deliveries, the incidence of respiratory distress syndrome (RDS) was much higher in the Cesarean section group.⁶² The incidence of RDS was one per cent in those patients delivered vaginally at 37-38 weeks of gestation, whereas it was 8.4 per cent in those babies delivered abdominally. For 35-36 weeks' gestation, the corresponding rates were 5.4 per cent and 31.8 per cent respectively. Thus it seems that RDS, which is the main fetal risk after delivery, is related to the mode of delivery as well as to prematurity. Accordingly it seems reasonable to attempt to deliver all patients vaginally when the decision to terminate the pregnancy is made, unless contraindications to vaginal delivery are present.

The outcome of diabetic gestations can be considered from the viewpoint of the mother and the fetus. The low maternal mortality, higher than normal morbidity, and the long-term effects of pregnancy on maternal diabetes, including gestational diabetes, have al-

ready been discussed. As far as fetal mortality is concerned, the results are dependent on the classification of the maternal diabetes. It has been stated that fetal wastage is greater in gestational diabetes, as well as in potential diabetes.^{50,63,64} Some series, however, have shown an equal perinatal mortality (PNM) in Class A patients and normal gravida, especially if the Class A patients are less than 25 years old and do not progress to frank diabetes.^{31,47,51} However, one must assume that these Class A patients received much closer supervision during their pregnancies than did normal gravida, and in some series, had their pregnancies terminated before 40 weeks by elective induction of labor. Other authors have found a significantly higher PNM rate, generally about 2 to 3 per cent, in Class A patients as compared to normal gravida, regardless of treatment with diet. However, they have shown a significant reduction in PNM among the Class A patients when they have been treated with insulin.

Among the Classes B through F, there is fairly uniform agreement that even excellent supervision and diabetic control will not lower PNM levels to normal rates. Generally, with good medical care, fetal mortality rates in these patients are in the 10 per cent range with no significant differences in the B, C, or D classes.^{54,65} However, all authors stress the importance of strict medical management, close obstetrical supervision, and excellent pediatric care in lowering the perinatal mortality figures from the once common rates of 27 per cent for Class A, and 54 per cent for higher classes of diabetic gravida.^{7,54,65,66}

As far as fetal morbidity is concerned, there is the greater likelihood of birth injury in a larger baby delivered vaginally. Furthermore, neonatal hypoglycemia is more frequently seen due to the pancreatic islet cell hypertrophy which results from the high glucose concentrations to which the fetus has been exposed.⁴⁰ Hyperbilirubinemia, hypoglycemia, and electrolyte imbalances have been reported to occur more frequently in infants born of diabetic mothers, all pointing to the relatively

delayed functional development of the fetal organ systems in these macrosomic, mature-by-dates infants.

Respiratory distress syndrome has also been considered to be more frequent in the offspring of diabetic patients, but whether this is due to the relative immaturity of the fetal respiratory system or to the increased incidence of premature deliveries and deliveries by Cesarean section is not clear.⁶² Likewise, the question of an increased incidence of fetal anomalies in the offspring of diabetic gravida is not settled with several investigators reporting different results.^{64, 66, 67, 68}

Conclusion

This paper has outlined the course of a diabetic pregnancy, including the hormonal changes in relation to hyperglycemia. The detec-

tion and diagnosis of gestational diabetes was considered, including the patients who are at greatest risk. White's classification was presented, and the management of the pregnant diabetic through gestation, labor and delivery, and the puerperium was outlined. The short and long-term effects of pregnancy on diabetes and diabetes on pregnancy were discussed, as were the fetal and maternal morbidity and mortality. The many areas of controversy still existing in the diagnosis and management of diabetic pregnancies were presented.

It is hoped that all physicians will be interested in the management of the problems of diabetes and pregnancy, so that the prognosis of such gestations will continue to improve.

A bibliographic listing of 68 citations is available upon request.

Pneumatic Trousers

A "pneumatic trouser" that provides a method of transfusing a patient in shock with his own blood has been developed at the U.S. Army Aeromedical Research Laboratory by Lt. Col. Burton H. Kaplan, M.D.

The device, known as an "emergency auto-transfusion medical pneumatic trouser," successfully implements a theory that has been of interest to the profession since it was first advanced in 1903 that external counterpressure could elevate blood pressure.

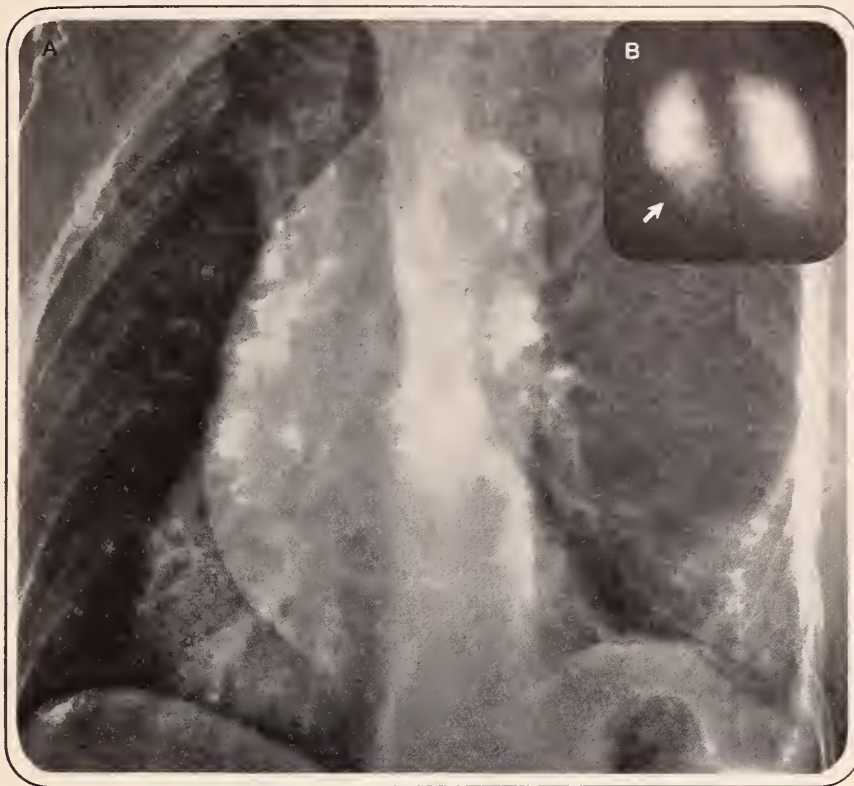
When a patient goes into shock because of injury, heart attack, or some other reason, venous blood tends to pool in the legs. The pneumatic trouser can exert sufficient counterpressure to squeeze that blood back into the upper portion of the body, insuring vital circulation to the heart and brain.

The external pressure comes from inflation of the trouser by a foot pump. Made of a special

plastic fabric, the garment fits over a patient's legs, groin areas, and up to the lower edge of the rib cage. A relief valve is incorporated so that pressure will not exceed the desired level. The pneumatic trouser will be of special value to paramedical personnel for use at an accident scene. Those people do not ordinarily have the facilities to give a blood transfusion, so the use of this device will permit stabilization of the patient until he can be moved to a hospital for definitive treatment.

Effectiveness of the trouser is now being evaluated by the rescue squad of the Miami, Florida fire department. Twenty-two cases have been handled where accident victims would not have survived to reach the hospital without the trousers. Colonel Kaplan formed the concept for his invention while in Vietnam. "The paramedics did a magnificent job, but it was obvious that they could have saved many more lives had they had some way of helping soldiers who were in shock," he said.

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CLINICAL NOTES

Readers of THE JOURNAL are invited to submit personal contributions for this new page. Material of general interest, which can be concisely summarized (one or two paragraphs—up to 150 words), and does not require a thorough report, is preferred. If you have a successful new procedure, a brief practical suggestion, or a bizarre or unusual clinical experience you would like to share with your colleagues, please send it to us (PO Box 904, Trenton 08605) for "Clinical Notes."

Multiple Sclerosis Society

Patients with multiple sclerosis (and their families) should be told of the National Multiple Sclerosis Society. The only organization in southern New Jersey which is dedicated to both patient services and research is the chapter located at 792 Haddon Avenue, Collingswood, New Jersey 08108.

At no expense to the patients, this organization helps MS victims in supportive and educational ways by providing medical equipment (with a doctor's Rx), consultive and referral services, and a swimming-exercise program. For more information write to the Society.

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NEW JERSEY DOCTORS' NOTEBOOK

Trustees' Minutes

January 20, 1974

A regular meeting of the Board of Trustees was held on January 20, 1974, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

Health Management Systems . . . Authorized the presentation of a program entitled "Problem Oriented Medical Records," conducted by Health Management Systems, Inc., as a continuing medical education accredited course (2 credits) at MSNJ's 208th Annual Meeting in May.

Journal . . . Received with commendation a report from the Editor of *The Journal*, Arthur Krosnick, M.D., of which the following is a summary:

—Thanked the Board for its confidence in appointing him Editor

—Commended *The Journal* staff on a job well done

—Pointed out that a large share of *The Journal* deficit is the result of the cost of Transactions and Annual Meeting Issues

—Urged Officers and Board not to offer space in *The Journal* for items which should be paid advertisements

—Noted that data on cash flow and cost is available to Board members at any time

—Requested avenue for immediate reply to letters to *The Journal* pertaining to actions of the Board (Mr. Maressa or a Board member designated for that purpose)

—Urged Board to consider having a member write an editorial or informational item delineating MSNJ's position on controversial or sensitive issues, when indicated

—Noted that the President of CMDNJ has been asked to urge his respective Deans and faculty members to submit manuscripts for possible publication

—Noted that the Publication Committee will soon consider the matter of associate editors and make suitable recommendations to the Board

—Requested opportunity to attend meetings of the Board from time to time to provide information and/or to share ideas

Hospital Utilization Project . . . Requested that James J. Fitzpatrick, M.D., Executive Vice-President of the Hospital Research Educational Trust (HRET), and members of his staff meet with the Medical Record Abstracting Committee of the New Jersey Foundation for Health Care Evaluation (NJFHCE) to discuss the merits of several proposals being developed concerning hospital peer review.

Note: Dr. Fitzpatrick was present at the Board meeting to respond to the action of December 1973, which was to advise New Jersey hospital chiefs of staff that participation in the HRET hospital utilization program may well result in relinquishment of physician control over hospital peer review and possible PSRO involvement. Dr. Fitzpatrick stated that the project would in no way impinge upon physician control, but would provide the reviewing physician with a flexible abstracting system. Since the Foundation (NJFHCE) has a special committee considering medical records abstracting, which is not convinced that the HRET project is in the best interests of the patient and the physician, the above-mentioned meeting was requested.

Blue Cross-Blue Shield Program for Employees of Physicians . . . Noted that at the next meeting of the Committee on Medical Defense and Insurance representatives of the American Association of Medical Assistants, State of New Jersey, will be invited to attend to discuss limiting the BC/BS coverage for physicians' employees to members of that organization.

Gasoline Shortage . . . Directed that a communication go to the Governor, with a copy to President Nixon and the Chief of the Federal Energy Office, urging that the necessary steps be taken to assure physicians of the availability of sufficient gasoline to maintain their practices.

Acupuncture . . . Directed that a member, who had requested that his specialty listing in MSNJ's *Membership Directory* be "acupuncture," be notified that the category of acu-

puncture is not available in the *Membership Directory*, since it is not a recognized specialty or subspecialty on either the national or state level; also that the Credentials Committee be

instructed that until such time as the AMA, the American Specialty Boards, and MSNJ recognize it as a specialty, *Directory* classification cannot be granted.

CMDNJ Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

Next month this column will feature a summary of the 1972-1973 Annual Report of the College of Medicine and Dentistry of New Jersey. In the meantime, since my last report to you, there have been several events which I would like to bring to your attention.

Under a grant from the Hunterdon Health Fund we have undertaken a program of evaluation of graduate medical education opportunities in New Jersey. While so doing, we are publicizing those opportunities currently available. More than 10,000 booklets telling of graduate medical education programs in New Jersey have been distributed to senior medical students throughout the country as well as to medical school student counselors. The booklet, which also highlights New Jersey's many economic, cultural, natural, and educational advantages, can be secured by writing the New Jersey Advisory Council on Graduate Medical Education, in care of the College at 100 Bergen Street, Newark 07103. We'll be more than pleased to send you a copy or copies if you want to send one to a friend who is considering New Jersey as a future home.

The junior branch of the American Women's Medical Association at our New Jersey Medical School conducted a highly successful symposium on the "Momentum of Women in Medicine" in Newark, in December. It attracted a packed house of some 200 women physicians, students of medicine, and aspiring medical students from throughout the Northeast.

Joining with our own faculty and students in presenting the symposium were Dr. Avodah K. Offit, chief of the Sexual Therapy and

Consultation Center, Lenox Hill Hospital, New York City, and Dr. Valerie Jorgensen, assistant professor of obstetrics and gynecology at the University of Pennsylvania.

The CMDNJ-Rutgers Medical School has been awarded two NIH grants of over \$100,000. One for \$58,141 will fund the continuation of the school's intensive summer program of instruction for disadvantaged students from minority groups. This summer's subject matter will be first-semester gross anatomy, biochemistry, and histology. The other grant for \$44,011 will be used by the dean of the school to develop training programs for health professions' assistants and traineeships under preceptors in family practice or internal medicine, for full-time students.

The College is moving rapidly on its mandate to establish a School of Allied Health Professions. The committee to select the dean for the school will include representatives from the students and faculty of our schools, the allied health professions, and the community. It will obtain recommendations for candidates from all elements of the academic, professional, and lay communities; review such candidates on the basis of appropriate democratic procedures; and recommend to the President of the College a slate of no less than three acceptable candidates. The ultimate decision and authority for appointment of the dean rests, of course, with the Board of Trustees of the College.

A grant of \$66,000 from the Schering Foundation has made possible a collaborative program of the CMDNJ-New Jersey Medical School in Newark and Stevens Institute of Technology in Hoboken to bring medical doctors, research scientists, and engineers into joint medical research projects. The grant

will be used for the acquisition of a chemical ionization mass spectrometer and its maintenance and operation at the Stevens campus. Directed by Dr. Ajay K. Bose, professor of chemistry at Stevens, and Dr. John Bauman, associate professor of physiology at the CMDNJ-New Jersey Medical School, the project will involve faculty members and doctoral degree candidates at both schools. Areas of research proposed under the new program in-

clude bio-chemical changes in pancreatitis, variations in membrane lipids, steroids associated with the placenta, and bile acid changes in cancer of the liver.

The College is indeed grateful to the Schering Foundation for its support of this innovative program, as we are to all of the corporations and foundations who have been so generous in their support of our past programs.

Communicable Diseases in New Jersey

The following communicable diseases were reported to the Communicable Disease Control Program of the New Jersey State Department of Health during January 1974.

	1974 January	1973 January
Aseptic meningitis	7	7
Primary Encephalitis	2	0
Hepatitis: Total	109	185
Infectious A	59	159
Serum B	24	26
Unspecified	26	0
Malaria	0	0
Meningococcal meningitis	5	3
Military	0	2
Civilian	5	1
Mumps	127	136
German measles	13	100
Measles	343	33
Salmonella	112	87
Shigella	37	63

Typhoid Fever

On November 3, 1973, the members of a small church in Burlington, New Jersey, prepared and served dinners of fried fish, fried oysters, potato salad, and string beans. Approximately 90 dinners were sold. One hundred and five persons are known to have eaten a dinner at the church or to have taken one home. Many dinners were shared.

On December 8, 1973, five weeks after the dinner, the New Jersey State Laboratory confirmed an isolate from the blood of a hospitalized patient as *Salmonella typhi*. By

the end of December, *Salmonella typhi* was isolated from the blood of two more individuals and the stools of twenty.

Seventeen of the individuals with positive cultures had eaten dinners on November 3, 1973 prepared at the Burlington church. Two of the positives had not eaten the dinner but were husbands of women who ate dinners; their wives were positive. The third individual, who was positive but who did not eat the dinner, employed one of the typhoid fever cases as a domestic. Eight individuals who ate the dinner and who had illnesses suggestive of typhoid fever had stools negative for pathogenic organisms. The ages of the individuals with positive cultures ranged from 3 years to 69 years. Nine were male and fourteen female. Three of the individuals who ate the dinner and had positive stool cultures were asymptomatic, as were two of the secondary cases mentioned above.

The onset of illnesses of individuals with positive cultures were from November 12, 1973 until December 10, 1973. Fever, chills, headache, cough, and achiness were the earliest symptoms. Abdominal pain and diarrhea came later in the disease. No skin rashes were noted.

The New Jersey State Health Department has kept all cases and their families under close surveillance. Our utmost concern is to prevent spread of the infection to family and community contacts. The mechanism by which the dinner became contaminated is still under investigation.

New Supplemental Security Income Program

(Prepared by Eric H. Wolf, M.D., Medical Director, Division of Disability Determinations)

On January 1, 1974, a nationwide program of direct Federal payments to aged, blind, or disabled persons with limited income and resources went into effect. Known as "Supplemental Security Income" (SSI), the new program will have uniform eligibility requirements for such persons to replace the multiplicity of requirements existing under the present Federal-State public assistance programs.

The SSI program will be wholly financed from Federal general tax revenues. Responsibility for administering the program has been given to the Social Security Administration (SSA) not only because of their experience in managing a monthly benefit payment program and the existing SSA advanced data processing system, but also because of the well-established nation-wide network of SSA offices and program centers.

The title of the program—Supplemental Security Income—indicates that these benefits are expected in most cases to *supplement* income from other sources, including social security benefits. Those persons receiving public assistance on the basis of age (65), blindness, or disability according to State plans in effect for October 1972 and who received such aid for December 1973 will, in general, be converted to the federal rolls beginning January 1974. Further, blind and disabled recipients will continue to be considered blind or disabled for SSI program purposes so long as they continue to meet the definition of blindness or disability under the State plan or the provisions for blindness or disability that apply to new claimants under the Federally administered program after December 1973. According to preliminary data, it is estimated that about 6.2 million people including approximately 1.6 million blind and disabled people will be eligible in January 1974 on this basis.

The Federal law will pay many people who are not now eligible under State programs because they have income or resources above specified levels, or because their States have requirements making relatives responsible for their care. Also, many people who actually meet the State requirements do not apply for public assistance payments in States which have lien laws. Since the Federal law has neither lien law nor relative-responsibility provisions, more people are expected to apply.

The States may, at their own option, elect to supplement the Federal SSI payment. Estimates are that about a million of the SSI recipients will receive additional State aid beyond the Federal payment.

The SSI program will generally use the same definitions of disability and blindness used in the social security disability insurance program for determining eligibility in new claims. To help simplify and speed the processing of disability decisions and to insure uniform treatment of all applicants, no matter where they live, the medical evaluation criteria developed for the Title II disability insurance program (social security) with the aid of practicing physicians, medical organizations and the Medical Advisory Committee to the Social Security Administration have been generally adopted for the SSI program. The evaluation criteria describe in terms of symptoms, signs, and laboratory findings, impairments that reflect the level of severity that would prevent most people from working for a year or longer. These criteria are constantly being refined to reflect advances in medicine and to take into account disability program experience.

If an applicant has an impairment or a combination of impairments that meet or equal the criteria, and he is not working, he would generally be considered disabled. Most allowances are based on medical considerations alone—that is, the claimant's impairment meets or equals the level of medical severity in the criteria. It is also possible for an impairment to be slight or minimal thereby resulting in a denial strictly on a medical basis.

However, for workers who have impairments which fall short of the listed level of severity but which prevent them from doing their previous or customary work, consideration is given to their ability to do any other work in light of their remaining capacity and of their age, education, training and work experience. In these cases, the individual must not only have an impairment which prevents him from doing his usual work, or work he has done previously, but also must be unable to do other kinds of work for which he is reasonably suited. In the situation where an older worker with a marginal education and a long history of arduous unskilled physical labor has an impairment which prevents him from doing his usual work, he may be considered under a disability.

Everyone who applies for disability benefits—whether he subsequently receives monthly benefits or not—is screened for possible services by the Division of Vocational Rehabilitation. The States will be fully reimbursed by the Federal Government through the Rehabilitation Services Administration for the services they provide to qualified disabled and blind SSI recipients.

With the anticipated doubling of the State disability determination unit workloads, emphasis will be placed on expanding resources within the medical community so that we will be able to get medical reports needed for adjudication of claims as quickly as possible. Although generally the same guides apply under Title II and Title VI there are some differences. For example:

1. *No Waiting Period*—Under Title XVI (SSI), an individual who is determined to be blind or disabled will be eligible for payment for the first month in which he has filed an application and is disabled. There is no set waiting period which must be served after the onset of disability and during which payment cannot be made. (Under Title II, a five-month waiting period must be served after the onset of disability.)

2. *Presumptive Disability*—The law provides that an applicant for disability benefits who is found to be "presumptively disabled" may be paid, under certain conditions, for as many as 3 months while a formal determination of his disability is being made. This provision, along with the absence of a waiting period under SSI, will intensify the need for obtain-

ing medical evidence more rapidly so that disability determinations can be made promptly on claims filed by needy SSI applicants.

3. *Childhood Disability*—With the implementation of the SSI program, the Social Security Administration will for the first time be responsible for disability evaluation and payment for children who are under the age of 18. A child of a family with limited income and resources will be found disabled if the child has a medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for at least 12 consecutive months and is of comparable severity to that which would prevent an adult from engaging in substantial gainful activity. The question of vocational assessment and concomitant ability to engage in substantial gainful activity is generally not relevant in evaluating disability during childhood because, in most situations, the child will not be of an age where he could reasonably be expected to enter the working population. Thus, in childhood cases, a finding of disability will be made solely on the basis of medical considerations including special medical criteria being developed for these cases within the above framework of consideration. There are, for example, severe impairments unique to childhood cases which are not now specifically described in the Social Security Listing of Impairments. The new medical criteria with appropriate signs, symptoms and laboratory findings are being formulated to evaluate these cases. There will also be a need for frequent pediatric reports under the new program. Similarly, there will be a need for the New Jersey State disability determination unit to have pediatricians on its staff to review reports on these types of cases.

4. *Drug Addiction and Alcoholism*—The law provides that a disabled person, who has also been medically determined to be a drug addict or alcoholic, shall be eligible for SSI payments only if he is undergoing treatment appropriate for his condition as an addict or alcoholic at an approved institution or facility, if one is available. An eligible individual who has been medically determined to be a drug addict or alcoholic must receive benefits via a representative payee.

5. *Blindness*—The criteria for establishing blindness under SSI are identical to those required to establish statutory blindness under the social security disability insurance program. Unlike Title II, however, engagement in substantial gainful activity will not preclude SSI payments if the statutory definition of blindness is met, although the SSI payments may be reduced under the income test. Also, since there is no duration requirement for blindness under SSI, there can be a favorable decision based on temporary blindness. Once again, the need for comprehensive and prompt medical reports must be underscored.

Implementation of the SSI program will undoubtedly give rise to new questions and point out areas of concern with respect to the medical community and the State agencies. Questions or requests for additional information, should be directed to: Dr. Eric H. Wolf, Medical Director, Division of Disability Determinations, 1100 Raymond Boulevard, PO Box 649, Newark, New Jersey, 07101, or telephone (201) 648-2527.

Therapeutic Drug Information Center

The New Jersey Regional Pharmaceutic and Therapeutic Drug Information Center is a project of the New Jersey Regional Medical Program. The Center serves as a source of intelligence on specific problems, articles, and reports concerning pharmaceutic and therapeutic information. A specialized library maintained by the Center contains complete information about U.S., foreign, investigational, and proprietary drugs, including their identification, availability, interactions, compatibility, side effects, dosage, adverse reactions, and so on.

The Center is staffed by trained pharmacists. Jack M. Rosenberg, Pharm. D., Associate Professor of Pharmacy and Director of Drug Information, Brooklyn College of Pharmacy, is Project Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College is pharmacologist consultant. The service is free, available Monday through Friday from 9 a.m. to 5 p.m.—telephone (201) 445-4900, extension 132. Below are four questions and answers handled by the Center recently.

1. Is propoxyphene (Darvon®) addictive?

Propoxyphene was introduced into therapeutics as a substitute for codeine in 1957. Early studies suggested that the drug had few addictive qualities, although it was known that propoxyphene can partially suppress the morphine abstinence syndrome in both monkeys and man.¹

The first case-report of propoxyphene dependence appeared in the literature in 1963.² A 28-year-old male patient with a history of multiple drug addiction was taking between 960 and 1950 mg per day. He was successfully detoxified over a 15-day period but approximately two months after discharge he regressed to abuse of the drug once again.

Claghorn and Schoolar³ published a report of three further cases of propoxyphene abuse in 1966. Among these was the first published report of "shooting" propoxyphene pellets, dissolved in water, intravenously. Thrombophlebitis was a common complication of this practice.

Further case reports of propoxyphene abuse have been published by Kane and Norton,⁴ Salguero, *et al.*⁵ Collins and Mathis,⁶ and Wolf, *et al.*⁷ Owen⁸ claimed that propoxyphene, administered principally orally, was reportedly the most commonly abused drug in the Milwaukee area among the younger drug users.

In a study of 41 deaths in which propoxyphene was involved over a two-year period, four of the patients were categorized as "drug abusers" due to historical circumstances.⁹ The high levels of propoxyphene present in these patients suggested habituation in three instances.

Based on these reports it is clear that propoxyphene can cause dependence.

References

¹ Elson, A. and Domino, E.: Dextro propoxyphene addiction. *JAMA* 183:482-485, 1963

² *Ibid*

³ Claghorn, J. L. and Schoolar, J.C.: Propoxyphene hydrochloride, a drug of abuse. *JAMA* 196:137-139, 1966

⁴ Kane, F. and Norton, J.: Addiction to propoxyphene. *JAMA* 211:300, 1970

⁵ Salguero, C., *et al.*: Propoxyphene dependence. *JAMA* 210:135, 1969

⁶ Collins, M. and Mathis, J.: Addiction to intravenous Darvon®. *Oklahoma State Med Assn J* 60:609, 1967

⁷ Wolfe, R., *et al.*: Propoxyphene (Darvon®) addiction and withdrawal syndrome. *Ann Intern Med* 70:773, 1969

⁸ Owen, N.: Abuse of propoxyphene. *JAMA* 216:2016, 1971

⁹ Sturmer, W. and Garriott, J.: Deaths involving propoxyphene. *JAMA* 223:1123, 1973

2. What reports do you have regarding the use of propranolol (Inderal®) in the treatment of anxiety?

Anxiety affects the human organism in part by beta adrenergic stimulation, and for this reason the beta-blocking drugs have anti-anxiety properties. Tachycardia, tremor, sweating, and palpitations are common manifestations of anxiety which may be diminished by beta blockade.¹

In a controlled trial, when administered to anxious outpatients, propranolol (Inderal®) was shown to be as effective as chlordiazepoxide (Librium®) in alleviating the somatic manifestations of anxiety.²

The short-term effects of propranolol on a small group of schizophrenic patients was described by Atsmon, *et al.*³ All patients exhibited a decrease in manic behavior, amelioration of thought disorder, subjective reduction in hallucinations, and relief of anxiety. Upon withdrawal of propranolol therapy these symptoms returned.

In a controlled study in chronic alcoholic patients who had symptoms of anxiety and tension, propranolol did not show any clear trends of superiority over a placebo.⁴

Linken⁵ provided a brief report of three patients in anxiety states subsequent to LSD ingestion whose symptoms were relieved upon the addition of propranolol to their drug regimen.

Brewer⁶ reported on the beneficial effects of beta adrenergic blockade on "exam nerves." His results clearly showed that propranolol caused no impairment of examination performance and may have actually

improved performance in those who would otherwise have been handicapped by severe anxiety, especially when cardiovascular symptoms were prominent.

References

¹ Greenblatt, D. and Shader, R.: On the psychopharmacology of beta adrenergic blockade. *Curr Ther Res* 14:615-625, 1972

² Wheatley, D.: Comparative effects of propranolol and chlorthalidopoxide in anxiety states. *Brit J Psychiat* 115:1411-1412, 1969

³ Atsmon, A., et al.: The short-term effects of adrenergic-blocking agents in a small group of psychotic patients. *Psychiat Neurol Neurochirur* 74:251-248, 1971

⁴ Gallanet, D., et al.: A controlled evaluation of propranolol in chronic alcoholic patients presenting the symptomatology of anxiety and tension. *J Clin Pharmacol* 13:41-43, 1973

⁵ Linken, A.: Propranolol for LSD-induced anxiety states. *Lancet* 1039-1040, 1971

⁶ Brewer, C.: Beneficial effect of beta-adrenergic blockade on "exam nerves." *Lancet* 435, 1972

3. Recently an article appeared in the *New York Times*, December 14, 1973, concerning severe colitis associated with lincomycin and clindamycin therapy. Do you have any information concerning severe colitis associated with these drugs?

Diarrhea often develops in patients receiving lincomycin (Lincocin®) therapy. However, it also has been reported that conditions resembling acute ulcerative colitis and pseudomembranous colitis have been associated with lincomycin (Lincocin®) and clindamycin (Cleocin®) therapy. A severe diarrhea, sometimes tainted with blood or mucus and pus, has been observed during lincomycin therapy and, less frequently, with clindamycin. The diarrhea is more common after oral administration than after parenteral use and can result in acute colitis.¹

Kaplan and Weinstein² indicate that, with lincomycin administration, a clinical picture simulating acute ulcerative colitis may appear with fever, severe abdominal cramps, intestinal distention, leukocytosis, and blood and mucus in the stool.

Scott, et al.³ have recently described eight patients with pseudomembranous colitis, a disease with an appreciable mortality rate. In seven of the eight, the administration of lincomycin preceded the illness. (Three of the seven received only parenteral lincomycin.) The authors indicate that it appears likely that lincomycin is a cause of pseudomembranous colitis and they anticipate that the related drug clindamycin will also be associated with the disease.

Benner, et al.⁴ and Ecker, et al.⁵ also have reported pseudomembranous colitis associated with lincomycin.

In conclusion, whether lincomycin and clindamycin are a common cause of certain forms of colitis remains to be determined. One should be aware that such effects have been associated with this therapy.

References

¹ The American Medical Association: *AMA Drug Evaluations*, Second Edition, Publishing Sciences Group, Inc., Acton, Massachusetts, 1973, p. 534

² Kaplan, K. and Weinstein, L.: *Pediat Clin N Am* 15:131, 1968

³ Scott, A.J., et al.: Lincomycin as a cause of pseudomembranous colitis. *Lancet* 3:1232-1234, 1973

⁴ Benner, E.J., et al.: Pseudomembranous colitis as a sequel to oral lincomycin therapy. *Amer J Gastroent* 54:55-58, 1970

⁵ Ecker, J.A. et al.: Pseudomembranous enterocolitis—an unwelcome gastrointestinal complication of antibiotic therapy. *Amer J Gastroent* 54:214-228, 1970

4. Do you have information concerning the use of propoxyphene napsylate (Darvon-N®) in treating heroin addiction?

Our search revealed one reference concerning the use of propoxyphene napsylate (Darvon-N®) for heroin addiction.

First, it should be noted that propoxyphene napsylate is not approved by the Food and Drug Administration for use in heroin detoxification or maintenance programs. Furthermore, Eli Lilly and Company does not recommend its utilization for these purposes, as safety and efficacy data are not sufficient to support such use.¹

Tennant, et al.² have recently reported preliminary results of treatment of heroin addicts with propoxyphene napsylate. The report states that as of August 1, 1973, three Los Angeles programs had detoxified 280 heroin addicts and an additional 92 addicts have been maintained on an outpatient basis with propoxyphene napsylate for periods ranging up to 300 days. Daily maintenance doses of 70 current patients ranged from 400 mg to 1,500 mg per day, with a mean dose of 800 mg per day.

Tennant has indicated that subsequently, numerous reports have reached him that indicate propoxyphene napsylate treatment is spreading at a faster rate than current data on effectiveness and safety may warrant.³ Compared to methadone maintenance, the effectiveness of propoxyphene napsylate maintenance is unknown.

The report concluded that despite initial indications of relative safety, caution with propoxyphene napsylate treatment appears necessary until further studies are completed.

¹ Bennett, I.F.: Letter to editor. *JAMA* 226:1012, 1973

² Tennant, Jr., F.S., et al.: Treatment of heroin addicts with propoxyphene napsylate. Read before the Committee on Problems of Drug Dependence of the National Academy of Sciences, Chapel Hill, North Carolina, 1973

³ Tennant, Jr., F.S.: Letter to editor. *JAMA* 226:1012, 1973

208th Annual Meeting

May 11-14, 1974

PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

CARDIOLOGY—Maraboyina Sudhakar, M.D., 240 East Westfield Avenue, Apt. B-5, Roselle Park 07204. Osmania (India) 1968. Board certified. Group, partnership, hospital, solo. Available July 1974.

FAMILY PRACTICE—Samuel A. Greenberg, M.D., P.O. Box 434, Woodstock, New York 12498. New York Medical 1937. Emergency room of hospital. Available immediately.

Eugene J. Mlynarczyk, M.D., c/o General Delivery, Brigantine 08203. Temple 1969. Board eligible. Group. Available.

David F. Pierson, M.D., 4102 Dover Lane, Temple, Texas 76501. National University (Galway, Ireland) 1972. Partnership—no obstetrics. Available September 1974.

A. R. Tessler, M.D., 13342 Malena Drive, Santa Ana, California 92705. Hahnemann 1969. Solo or association. Available. Will purchase practice in south Jersey.

INTERNAL MEDICINE—Edward A. Wroblieski, M.D., 531 Charleston Road, Mt. Laurel 08057. Jefferson 1968. Board eligible. Group, partnership, or solo. Available July 1974.

Thomas J. Cuomo, Jr., M.D., 5405 Markview Lane, Richmond, Virginia 23234. Jefferson 1969. Board certified. Group or partnership. Available August 1974.

H. Farahany, M.D., 64 East Park Street, East Orange 07017. Tehran 1965. Board certified. Solo. Available July 1974.

Esteban R. Lomnitz, M.D., 2185 Lemoine Avenue, Apt. 6K, Fort Lee 07024. Chile 1963. Board certified. Subspecialty, cardiology. Group, partnership, or hospital. Available July 1974.

Arto Mouradian, M.D., Baylor Medical Center, 3500 Gaston Avenue, Dallas, Texas 75246. Cairo 1966. Board eligible. Hospital or group. Available July 1974.

Gloria L. Perez, M.D., Baylor Medical Center, 3500 Gaston Avenue, Dallas, Texas 75246. Santo Tomas 1961. Board eligible. Subspecialty, cardiology. Group or hospital. Available July 1974.

Suresh Jain, M.D., 320 East 23rd Street, New York 10010. Lucknow (India) 1960. Board certified. Sub-

specialty, gastroenterology. Group or partnership. Available July 1974.

Paul A. Hamlin, M.D., 673 Foch Boulevard, Wil-
liston Park, New York 11596. New York Medical
1967. Board certified. Subspecialty, pulmonary medi-
cine. Group, partnership; also part-time teaching.
Available.

M. I. Zafar, M.D., Apt. 11-D, 85 Manor Drive,
Newark 07106. King Edward (India) 1968. Sub-
specialty, cardiology. Group, solo, or partnership.
Available July 1974.

R. N. Saxena, M.D., 1915 Beacon Street, Brookline,
Massachusetts 02146. Varanasi (India) Medical Col-
lege 1969. Subspecialty, gastroenterology. Group or
partnership. Available July 1974.

M. E. Ali, M.D., Lung Research Center, Yale Uni-
versity, 333 Cedar Street, New Haven 06510. Karachi
University (Pakistan) 1964. Subspecialty, pulmonary
disease. Board eligible. Group or partnership. Avail-
able July 1974.

Jose A. Eisma, M.D., 5847 Castle Run, San Antonio,
Texas 78218. Santo Tomas 1963. Board eligible.
Group, partnership, institution. Available July 1974.

Amir Ahmad, M.D., 78-40 164th Street, Flushing,
New York 11366. King Edward (Pakistan) 1968.
Group, partnership, solo. Board eligible. Available
July 1974.

OBSTETRICS-GYNECOLOGY—Mei Pu Lin, M.D.,
6910-D Lachlan Circle, Baltimore 21239. Kaohsiung
(Taiwan) 1964. Board eligible. Group or partner-
ship. Available July 1974.

OPHTHALMOLOGY—Enrique Ellenbogen, M.D., 420
Sand Creek Road, Apt. 510, Albany, New York
12205. Cayetano Heredia Medical (Peru) 1968.
Board eligible. Association, partnership, solo.
Available September 1974.

PATHOLOGY—Americo B. Anton, M.D., 1910 Colum-
bia Pike, Apt. 7, Arlington, Virginia 22204. Tru-
jillo (Peru) 1970. Board eligible. Group, partner-
ship, solo, institution. Available July 1974.

PEDIATRICS—V. Balachandar, M.D., 267 North New
Bridge Road, B-18, Levittown, New York 11758.
Kasthuriba (India) 1966. Board certified. Subspe-
cialty, endocrinology. Group, partnership, institu-
tion, or clinic. Available July 1974.

J. N. Pahuja, M.D., 200 Carman Ave., Apt. 8-H,
East Meadow, New York 11554. Amritsar (India)
1962. Board eligible. Group, partnership, institu-
tion, clinic. Available July 1974.

Gerardo J. Mayer, M.D., 8201 Henry Avenue, Apt.
L-16, Philadelphia 19128. Buenos Aires 1967. Board
certified. Group, hospital, comprehensive care cen-
ter. Available September 1974.

Boris G. Kousseff, M.D., 1435 Lexington Avenue,
1-D, New York 10028. Sofia (Bulgaria) 1959. Board
eligible. Subspecialty, genetics. Hospital or group.
Available September 1974, or earlier.

RADIOLOGY—Robert D. Hochberg, M.D. 1600 Hagys
Ford Road, Narberth, Pennsylvania 19072. Pennsyl-
vania 1970. Board eligible. Group or partnership.
Available July 1974.

SURGERY— S. H. Green, M.D., 6938 Post Street, Edwards, California 93523. NYU 1966. Board certified. Solo, partnership, association. Available August 1974.

Tae Soo Kim, M.D., 660 East 98th Street, Apt. 5-J, Brooklyn, New York 11236. Catholic Medical (Korea) 1966. Group, partnership, solo, emergency room. Available July 1974.

Harvey L. Green, M.D., 15 Treaty Road, Drexel Hill, Pennsylvania 19026. Temple 1966. Subspecialty, vascular surgery. Board eligible. Group, partnership, clinic. Available July 1974.

K. G. Khalil, M.D., 2406 Bristol Road, Columbus, Ohio 43221. Cairo University 1961. Subspecialty, thoracic surgery. Board eligible. Group, partnership. Available July 1974.

Peter J. Periconi, M.D., 200 Carman Ave., Apt. 10-B, East Meadow, New York 11554. Hahnemann 1969. Subspecialty, vascular surgery. Board eligible. Group or associate. Available July 1974.

Kung-Ho Liu, M.D., 222 East 19th Street, New York 10003. Taiwan 1964. Board eligible. Group or partnership. Available July 1974.

Aftab A. Khan, M.D., 800 South Avenue, Apt. B-2, Secane, Pennsylvania 19018. Dow Medical (Pakistan) 1968. Board eligible. Group or partnership. Available July 1974.

Madhav V. Phadke, M.D., 666 Elm Street, Buffalo, New York 14203. M.G.M. Medical (India) 1967. Subspecialty, oncologic surgery. Board eligible. Group or partnership. Available July 1974.

Il Bong Kim, M.D., 950—49th Street, Brooklyn, New York 11219. Catholic Medical (Korea) 1967. Board eligible. Emergency room or institutional physician. Available July 1974.

Donald C. Martin, Jr., M.D., 340 South 19th Street, Philadelphia, Pennsylvania 19103. University of Pennsylvania 1962. Board eligible. Solo. Available September 1974.

LETTERS TO THE JOURNAL

Board Action Protested

January 11, 1974

Dear Sir:

I must now reverse my previous conviction that membership in the Medical Society of New Jersey is desirable for all physicians as it would further the welfare of medicine in general, the welfare of the individual physician, and, of course, most importantly help improve the quality of medical care which the patient receives.

A recent action by the Board of Trustees of the Medical Society of New Jersey blatantly disregarded the views of, and the welfare of psychiatrists and their patients in the State of New Jersey. The action in question was the endorsement by the Trustees of the Medical Society of New Jersey of a plan to operate a newly organized Graduate School of Psychology under the administration of the New Jersey College of Medicine and Dentistry. This

school will grant graduate degrees of a type that can only further blur the distinction between psychiatrists and psychologists. Operating this school under the aegis of the New Jersey College of Medicine and Dentistry can only add further confusion in the minds of the general public, as well as in the minds of State Legislators concerning the respective roles of medical and non-medical professionals in the mental health field.

It is not my present intention to discuss the merits of this particular school which are debatable. Rather it is to comment on the action of the Board of Trustees of the Medical Society of New Jersey in endorsing this plan over the expressed objection of the New Jersey Psychiatric Association, a component society of the Medical Society, as well as being contrary to the recommendations of the Medical Society's own Mental Health Committee. The Board of Trustees has by their contemptuous disregard of these opinions indicated their lack of responsiveness to, and lack of concern for the welfare of its individual members. It is a further example of "cronyism" in the Trustees being only responsive to vested interests of those in the power structure of the Medical Society of New Jersey.

The members of the New Jersey Psychiatric Association number over 400 most of whom are probably members of the Medical Society of New Jersey. There is now serious doubt concerning the wisdom of belonging to, and supporting, an organization which has such disregard for the opinions and welfare of a substantial number of its members. These members in question possess far greater expertise in the evaluation of the impact of such a project than the members of the Board of Trustees of the Medical Society.

Other members of the Medical Society of New Jersey who are members of specialty groups and who cannot generate the necessary "clout" to concern the Board of Trustees should reconsider the wisdom of supporting an organization which would so callously disregard the opinion of the New Jersey Psychiatric Association, as well as its own advisory counsel. A more general question is whether the Medical Society is capable of being responsive to the needs or opinions of its members who belong to smaller specialty groups. In the instance which prompted this correspondence the Medical Society of New Jersey proved not able or willing to do so. Perhaps the time has come to seek other more effective, organizational representation. Hopefully someone can suggest such representative organization for minority professional groups either within or without the Medical Society of New Jersey.

(Signed) John P. Motley, M.D.

Board Action Explained

January 24, 1974

Dear Sir:

Thank you for the opportunity to present a timely reply to the letter of John P. Motley, M.D., relevant to the action of The Medical Society of New Jersey's Board of Trustees in urging that the impending school of professional psychology be placed under the aegis of the College of Medicine and Dentistry of New Jersey.

In order to place the decision of our Board in its proper perspective, it will be necessary for me to assign events within their appropriate chronological parameters.

In May 1966, the House of Delegates of The Medical Society of New Jersey adopted a position of **ACTIVE OPPOSITION** to S-325, a bill to create a "Practicing Psychology Licensing Act," because it would permit non-physicians to practice psychotherapy. In spite of the vigorous and sustained opposition of MSNJ, the bill became law in the latter part of 1966.

At a meeting on March 31, 1971, the Council on Mental Health of MSNJ adopted the following policy statement, which was approved by the Board of Trustees on April 18, 1971, and by the House of Delegates in May 1971:

"That MSNJ reaffirm its opposition to the unsupervised practice of psychiatric modalities, including psychotherapy, by persons not licensed to practice medicine and surgery."

It is essential to note that during the Spring of 1971, we raised the issue on several occasions as to whether the Council on Mental Health meant to oppose the practice of psychotherapy by non-physicians under any circumstances, or only when the non-physician was acting without licensed physician supervision. The Council on Mental Health emphatically stated that its opposition was directed only toward the "unsupervised practice of psychiatric modalities, including psychotherapy, by persons not licensed to practice medicine and surgery."

In October 1973 the Board of Trustees of MSNJ was informed by Stanley Bergen, M.D., President of the College of Medicine and Dentistry of New Jersey, that the State Department of Higher Education had determined that there was to be a School of Professional Psychology in New Jersey, that the monies necessary for development of such a school had already been budgeted, and that the only decision remaining was whether the CMDNJ or Rutgers University would be the administrative and developmental agent. Dr.

Bergen stated that the College of Medicine believed that such a school should properly be placed under the administration of the College of Medicine and Dentistry in order to "assure appropriate and correct relationships between all individuals delivering personal health services to New Jersey citizens." The issues were further complicated by the fact that the Board of Higher Education was scheduled to meet either in late October or early November of 1973 to designate the administrative agent for the school.

Since the decision of the Board of Higher Education to establish such a school had already been made, since time was of the essence, and since the policy of the Society, as determined in 1971, centered on the issue of the "unsupervised practice of psychiatric modalities," the Board of Trustees believed it was obligated, at its October 21, 1973 meeting, to support the concept that administrative responsibility for the school be vested within the College of Medicine and Dentistry of New Jersey.

There patently was no "cronyism" involved. The decision was, in fact, based on the realities and the current policy of the Society.

Furthermore, the New Jersey Psychiatric Association and the Council on Mental Health each had representatives at the December 16, 1973 meeting of MSNJ's Board of Trustees, at which time the October 21, 1973 decision of the Board was reconsidered. Both of those physicians (Dr. Chester Trent and Dr. Robert S. Garber) were granted a full and fair opportunity to present their viewpoint. Dr. Bergen was also present and clearly stated his position, and explained it carefully to Drs. Trent and Garber as well as to our Trustees. Our Board, in the presence of all concerned parties, explained the logic behind its earlier decision and voted to reaffirm that action.

It must be pointed out that the Board of Trustees of the Society is the executive authority unless the House of Delegates is in session, and has the responsibility to act on behalf of the entire membership. It is sheer

folly to assert that, because the New Jersey Psychiatric Association (an allied organization) or the Council on Mental Health (a subordinate body) has taken a position on a particular issue, the Board of Trustees cannot, in the best interests of the medical profession, disagree with their theory. There are well over thirty Councils and Committees within The Medical Society of New Jersey, and with the exception of the Judicial Council, each and every one is accountable to the Board of Trustees. To foster the argument that the Board cannot disagree with any or all of these on specific issues is absolutely and patently untenable.

The contention that the action taken will blur, in the public mind, the distinction between physicians and psychologists is not, in my opinion, valid. Most medical schools regularly produce Ph.D.'s in various scientific disciplines and also have them on their teaching staffs. There has been no truly significant blurring of identities in those areas. Private psychiatric hospitals, community mental health centers, the State Psychiatric Hospitals, and psychiatrists in private practice employ psychologists or have them on their staffs. If, indeed, the distinctions have become obliterated, psychiatry itself may be partly responsible.

Our apologies for the verbosity of this response; however, the issues raised by Dr. Motley's letter require comprehensive and detailed comment.

(Signed) Vincent A. Maressa
Executive Director, MSNJ

Thank You from DDD, L and I

January 16, 1974

Dear Sir:

As the Medical Director for the New Jersey Division of Disability Determinations, I would like at the start of a new year to express my appreciation to all physicians and allied medical personnel who have assisted us

during the past year in furnishing medical reports for patients who apply for social security disability benefits. The timely receipt of these reports has been of vital importance in assuring prompt and proper evaluation of disability claims. More than 150,000 disabled workers and their dependents in this State are now receiving social security benefits. In 1973, a total of more than \$28,450,000 helped replace the income lost due to disability.

In this agency, which makes disability determinations on behalf of the Social Security Administration for New Jersey residents, the medical evidence in each case is reviewed by a physician. The evaluating physician never sees the applicant, and in the majority of our cases, the nature and extent of the claimant's impairment is determined on the basis of data supplied from the records of his treating physicians and hospital records. For this reason we are doubly grateful for the quality of the medical reports furnished us by the physicians of this State.

In January 1974, the Social Security Administration began administering the new federal program of supplemental security income which provides financial assistance to needy people who are aged, disabled, or blind. State agencies handling social security disability claims accepted a similar responsibility under the supplemental security income program. With this increase in disability determination unit workloads, there is a need to expand our medical sources to obtain medical reports needed for adjudication of these new claims. Additionally, under this program, we are responsible for the first time for evaluating disability claims filed for children who are under the age of 18. For these reasons it is necessary for us to reach pediatricians as well as other specialists in order effectively to administer the program. (See p. 223, this issue—A.K.)

As we leave the year behind and enter a new year of continuing program challenge and opportunity, I want to express to you my personal thanks for your past contributions and request your continued assistance in the future.

(Signed) Eric H. Wolf, M.D.

Acupuncture Bill

January 24, 1974

To MSNJ Members:

A committee of The Medical Society of New Jersey and others are actively engaged in drawing up legislation to regulate the practice of acupuncture to be sure it does not become "quacupuncture." To this end, we need to impress the legislators with the enormous pressure being applied to make us "30 day wonders" in the art—only it's down to two hours in some cases!

The relevancy of this procedure to modern medicine must evolve with care. If you have received "pressure literature" for "quick-learn courses," we need examples of this to demonstrate before the legislature. Please mail this literature to me at 203 South Euclid Avenue, Westfield, NJ 07090, and I will collate the material for presentation. For once—let's get on the ball and get this situation properly controlled.

(A bill has already been presented to the legislature to set up a separate board of acupuncture independent of the State Board of Medical Examiners!)

Rummage this about in your mind a bit—and act quickly, please.

(signed) Edward G. Bourns, M.D.
Member, Board of Trustees

Whither Cyclamate?

The latest FDA release on cyclamates indicated that Abbott Laboratories has submitted later and more extensive scientific data. The original concern in 1969 was the development of bladder tumors in animal feeding studies. The new data purports that those safety questions have been resolved. Although the FDA has not yet evaluated the newer data, they agree to make such examinations and to change their regulatory position if warranted.

ANNOUNCEMENTS

Graduate Lectures in Surgery

The following programs have been announced for the 1973-1974 "Distinguished Lecture Series" offered by the Department of Surgery of the New Jersey Medical School, CMDNJ:

- | | |
|----------|---|
| March 22 | Dissecting Aneurysm
Charles A. Hufnagel, M.D.
Department of Surgery
Georgetown University School
of Medicine |
| April 15 | Surgery in Ulcerative Colitis
Ward O. Griffen, Jr., M.D.
Department of Surgery
University of Kentucky College
of Medicine |
| May 13 | Program on Oncology
Walter Lawrence, Jr., M.D.
Division of Surgical Oncology
Medical College of Virginia |

Lectures are held at 4 p.m. in the amphitheater, 2nd floor, Martland Hospital, Newark. There is no charge. Guarded parking is available in parking lot M, 12th and Bergen Streets. For further information, please write to Eric J. Lazaro, M.D., Professor of Surgery, Martland Hospital Unit, CMDNJ, 65 Bergen Street, Newark 07107.

Graduate Courses in Medicine

The following schedule, in the series, "Advances in Medicine," has been announced by the Bergen Pines County Hospital, Paramus. Sessions are held in the hospital auditorium from 9:30 to 11 a.m. on the Wednesdays indicated and collation is offered at 9 o'clock. For further information write to the Office of Medical Education, Bergen Pines County Hospital, Paramus 07652.

- | | |
|----------|--|
| March 13 | Transcultural Psychiatry |
| March 20 | Medical Aspects of Space Travel |
| March 27 | Medical-Surgical Cardiology Conference |
| April 3 | Clinical Pathology Conference |
| April 10 | Hypertension |
| April 17 | Bacterial Enteritis |
| April 24 | Acromegaly |

Psychiatric Training Programs

At 9:30 a.m., on the Wednesdays indicated, the Saint Barnabas Medical Center in Livingston will present the following in a series of psychiatric training courses. This is part of a two-year program for psychiatrists, other physicians, psychologists, social workers, and professionals in allied fields. Appropriate credit will be allowed, as determined by MSNJ. Inquiries should be addressed to the Department of Psychiatry, Attention of Miss Hoffman, Saint Barnabas Medical Center, Livingston 07039.

- | | |
|----------|--|
| March 13 | History of Psychiatry |
| March 27 | Schizophrenia—clinical descriptions |
| April 10 | Schizophrenia—etiology, newer concepts |
| April 24 | Affective Psychoses |
| May 1 | Involutional Psychotic Reaction |
| May 15 | Depression |
| May 29 | Paranoia |
| June 12 | Psychoneuroses |
| June 26 | Psychoneuroses |

Psychiatric Graduate Programs

Fair Oaks Hospital in Summit, in cooperation with the Academy of Medicine of New Jersey, has arranged the following programs in the series, "Current Topics in Psychiatry:"

- | | |
|----------|---------------------------------------|
| March 20 | Schizophrenia—etiological theories |
| April 3 | Schizophrenia—treatment and prognosis |

Sessions are held from 3 to 4:30 p.m. (Wednesdays) at the hospital, 19 Prospect Street, Summit. Further information may be obtained from Granville L. Jones, M.D., Director of Research and Education.

OB-GYN Meeting in Las Vegas

The annual clinical meeting of the American College of Obstetricians and Gynecologists will be held in Las Vegas, Nevada, from April 29th through May 2, 1974. Highlight of the sessions will be the President's Program on "Conquest of Breast Cancer." There will be

some fifty papers on current clinical and basic investigational procedures presented, as well as films, luncheon conferences, round tables, and six special interest meetings. Registration fee for non-members is \$125. For further information, please write to the Associate Director of the College, One East Wacker Drive, Chicago, Illinois 60601.

London Conference on Cardiovascular Disease

From May 17 to 25, under the auspices of the Symposia Medica Foundation, London will be the scene of an international conference on clinical aspects of cardiovascular disease. Subjects to be covered include pathology of atherosclerosis, hypertension, the coronary patient in family practice, angina pectoris, hyperlipidemias, surgical intervention in coronary artery disease, and others. For information, please direct your communication to Ms. Cynthia Soika, Projects Director, Symposia Medica Foundation, 305 East 24th Street, New York 10010.

Pathology Residencies at Rutgers

Rutgers Medical School, CMDNJ, has instituted a postgraduate training program for residents in pathology, anatomic or clinical or both. The residencies run two to four years, and can be modified to fit the individual's needs. Hospitals involved in the program are Hunterdon Medical Center in Flemington, Somerset Hospital in Somerville, and Raritan Valley Hospital in Green Brook. Inquiries for the academic year beginning July 1, 1974, should be directed to Ashton B. Morrison, M.D., Chairman, Department of Pathology, Rutgers Medical School, CMDNJ, Box 101, Piscataway, New Jersey 08854.

Cassette Tapes on Orthopedics

A non-profit educational organization, Orthopaedic Audio-Synopsis Foundation, publishes monthly cassette tapes which contain lectures and discussion in the field of orthopedics. The current volume examines spina bifida cystica, low back pain without sciatica, paralytic dislocation of the hip, in-

formed consent, degenerative intervertebral discs, osteoporosis, the carpal tunnel syndrome, and many others. For information, please write to the Foundation at 1510 Oxley Street, PO Box H, South Pasadena, California 91030.

Attention Specialty Societies

The Academy of Medicine of New Jersey is now providing administrative and secretarial services for a number of New Jersey medical specialty societies. The cost is determined for each group on an annual basis, depending on the needs, objectives, and size of the organization. Some of the advantages and common services are:

—Permanent address and telephone number with 9 to 5 coverage.

—Secretarial time

—Dues collection and maintenance of membership roster

—Preparation of financial reports

—Meeting space and responsibility for meeting arrangements

Interested organizations should communicate with the Executive Director of the Academy, Mr. Charles Heitzmann, 2424 Morris Avenue, Union, New Jersey 07083, or telephone (201) 687-8780.

Note to Authors

A bibliography or references at the close of each article must follow the format of JAMA. Try to limit the number of citations to fifteen or less. If more are essential, they may be included (at the author's expense) with the reprints, but will not be published with the article in JMSNJ.

MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s).

1974

March

- 5 Regressive Changes of Oral Cavity in Aged
4-6 p.m.—CMDNJ, Newark
- 12 Effects of Aging on the Endocrine System
4-5 p.m.—CMDNJ, Newark
- 12 Reproduction Changes in Senility
5-6 p.m.—CMDNJ, Newark
- 19 Musculo-Skeletal Changes and Rehabilitation in the Aged
4-6 p.m.—CMDNJ, Newark
- 26 Dermatological Changes in Old Age
4-6 p.m.—CMDNJ, Newark
(Sponsored by CMDNJ, AAFP, and Academy of Medicine of New Jersey)
- 6 Laboratory Procedures in Allergy
10 a.m.—Babies Hospital, Newark
(Sponsored by New Jersey Allergy Society and Academy of Medicine)
- 6 Fate of Internship
1 p.m.—Rutgers Medical School, Piscataway
(Sponsored by Association of Hospital Directors of Medical Education and Academy of Medicine)
- 6 Paraneoplastic Syndromes
- 13 Neurological Complications of Systemic Cancer
- 20 Metabolic Bone Disease
- 27 Untoward Effects of Long-Term Steroid Therapy
9-11 a.m.—Middlesex General Hospital, New Brunswick
(Sponsored by Academy of Medicine, Middlesex Hospital, and AAFP)
- 6 Advances in Diabetes Mellitus
- 13 Advances in Thyroid Disease
- 20 Disorders of Pituitary Adrenal Axis
- 27 New Concepts in Allergic Disorders
8-9:15 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Academy of Medicine of New Jersey and Helene Fuld Hospital)
- 6 Differential Diagnosis of Arthritis
- 13 Pulmonary Function Studies
- 20 Allergic Emergencies
- 27 Acupuncture
11 a.m.—Our Lady of Lourdes Hospital, Camden
(Sponsored by the Academy of Medicine of New Jersey and Our Lady of Lourdes Hospital)
- 6 Mechanisms for Genesis of Cardiac Arrhythmias
- 15 General Principles of Pharmacotherapy
- 20 Electrophysiologic Effects of Digitalis
- 27 Antiarrhythmic Drugs—Procaineamide and Quinidine
4-5 p.m.—St. Joseph's Hospital, Paterson
(Sponsored by St. Joseph's Medical Center and Academy of Medicine)
- 10- Annual Meeting—Cardiorespiratory Diseases
- 13 New Jersey Chapter, American Academy of Family Practice, Cherry Hill Inn, Cherry Hill
- 12 Medical Care in Emergency Room
9 a.m.—Bayonne Hospital, Bayonne
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 12 Host Defenses in Malignant Melanoma
8 p.m.—Barnert Memorial Hospital, Paterson
(Sponsored by New Jersey Dermatological Society and Academy of Medicine of New Jersey)
- 13 Management of Renal Failure
1:30 p.m.—John E. Runnells Hospital, Berkeley Heights
(Sponsored by Academy of Medicine of New Jersey)
- 13 Infectious Diseases
Hunterdon Medical Center, Flemington
(Sponsored by Academy of Medicine of New Jersey)
- 14 Addict in Your Closet
9 p.m.—Carriage Trade, East Orange
(Sponsored by Essex County Medical Society and Essex County Pharmaceutical Society)
- 18 Electrolyte Imbalance
1:00 p.m.—Ancora Psychiatric Hospital, Hammonton
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 20 Immunotherapy with BCG
11:30 a.m.—Veteran's Administration Hospital, East Orange
(Sponsored by Pulmonary Disease Section, CMDNJ, and Academy of Medicine)
- 20 Diabetes
11 a.m.—St. Joseph's Hospital, Paterson
(Sponsored by St. Joseph's Medical Center and Academy of Medicine)
- 20 Drug Addiction
1 p.m.—Trenton Psychiatric Hospital, Trenton
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 21 Renal Disease
1-5 p.m.—Jersey City Medical Center
(Sponsored by Jersey City Medical Center, Nephrology Society of New Jersey, New Jersey Chapter AAFP, and Academy of Medicine of New Jersey)

- 21 **Therapy Sessions**
Pascack Valley Hospital, Westwood
(Sponsored by New Jersey Radiological Society and Academy of Medicine of New Jersey)
 - 21 **Proper Use of Antibiotics**
8:30 a.m.—Englewood Hospital, Englewood
(Sponsored by Academy of Medicine of New Jersey)
 - 24 **Problems in Obstetrics and Gynecology**
New Jersey Medical School, Newark
(Sponsored by CMDNJ)
 - 26 **Diagnosis in Neurology and Neurosurgery**
8 p.m.—Warren Hospital, Phillipsburg
(Sponsored by AAFP and Academy of Medicine of New Jersey)
 - 27 **Nurses' Education Program**
Holiday Inn, Jersey City
(Sponsored by American Heart Association of Hudson County and Academy of Medicine of New Jersey)
 - 27 **Ocular Toxoplasmosis**
7:30 p.m.—United Hospitals Center, Newark
(Sponsored by Associated Eye Residencies of New Jersey, New Jersey Medical School Hospitals, and Eye Institute of New Jersey)
 - 28 **Lumbar Spondylosis**
7:15-10:15 p.m.—Hospital Center at Orange
(Sponsored by the New Jersey Radiological Society and Academy of Medicine of New Jersey)
- April
- 2 **Body Fluids and Electrolyte Balance in the Aged**
4-5 p.m.—CMDNJ, Newark
 - 2 **Renal Function in the Aged**
5-6 p.m.—CMDNJ, Newark
 - 9 **Changes in Pulmonary Function with Age**
4-5 p.m.—CMDNJ, Newark
 - 9 **Effect of Aging on Drug Response**
5-6 p.m.—CMDNJ, Newark
 - 16 **Response of Aged to Anesthetic Procedures**
4-5 p.m.—CMDNJ, Newark
 - 16 **Response of Aged to Operative Stress**
5-6 p.m.—CMDNJ, Newark
 - 23 **Neurological Changes During Senility**
4-5 p.m.—CMDNJ, Newark
 - 23 **The Aging Eye**
5-6 p.m.—CMDNJ, Newark
 - 23 **Psychiatric Problems of the Aged**
4-6 p.m.—CMDNJ, Newark
(Sponsored by CMDNJ, AAFP, and Academy of Medicine of New Jersey)
 - 3 **Regional Meeting**
New Jersey Gastroenterological Society,
Martland Hospital, Newark
 - 3 **Practical Eye Care in Family Practice**
 - 10 **Gynecological Problem**
 - 17 **Emergencies of Pregnancy and Labor**
 - 24 **Pulmonary Function Testing**
9-11 a.m.—Middlesex General Hospital,
New Brunswick
(Sponsored by Middlesex Hospital, AAFP, and Academy of Medicine of New Jersey)
 - 3 **Skin Manifestations of Systemic Disease**
 - 17 **Diagnosis and Treatment of Joint Disease**
 - 24 **Hematological Manifestations of Systemic Dis.**
8-9:15 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Helene Fuld Hospital and Academy of Medicine of New Jersey)
 - 3 **Dialysis vs. Renal Transplant**
 - 10 **Surgical Pathology-Radiology**
11 a.m.-12 noon—Our Lady of Lourdes Hospital,
Camden
(Sponsored by Academy of Medicine of New Jersey and Our Lady of Lourdes Hospital)
 - 3 **Antiarrhythmic Drugs—Lidocaine and Diphenylhydantoin**
 - 10 **Antiarrhythmic Drugs—B-Adrenergic Blocking Agents**
4-5 p.m.—St. Joseph's Hospital, Paterson
(Sponsored by St. Joseph's Medical Center and Academy of Medicine)
 - 4 **New Developments in Scanning**
11:30 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Academy of Medicine of New Jersey and Helene Fuld Hospital)
 - 5 **Diagnosis of Renal Diseases**
9 a.m.—St. Francis Hospital, Trenton
(Sponsored by Academy of Medicine of New Jersey)
 - 9 **Diagnosis of the Anemic Patient**
9 p.m.—Bayonne Hospital, Bayonne
(Sponsored by AAFP and Academy of Medicine of New Jersey)
 - 10 **Acupuncture**
1:30 p.m.—John E. Runnells Hospital,
Berkeley Heights
(Sponsored by Academy of Medicine of New Jersey)
 - 15 **Alcoholism**
Ancora Psychiatric Hospital, Hammonton
(Sponsored by Academy of Medicine of New Jersey)
 - 17 **Clinical Symposia—Series VIII: Hypertension**
10 a.m.-5 p.m.—St. Joseph's Medical Center,
Paterson
(Sponsored by Academy of Medicine of New Jersey and St. Joseph's Hospital)
 - 17 **Fertility—Annual Burbeau Award**
6:30 p.m. (dinner)—Rod's 1920 Roadhouse,
West Orange
(Sponsored by Academy of Medicine of New Jersey, Urology Section)
 - 17 **Management of Respiratory Failure**
11:30 a.m.—Veteran's Administration Hospital,
East Orange
(Sponsored by CMDNJ Pulmonary Disease Section and Academy of Medicine of New Jersey)
 - 18 **Bleeding Diseases**
8:30 a.m.—Englewood Hospital, Englewood
(Sponsored by Academy of Medicine of New Jersey)
 - 23 **Differential Diagnosis of Arthritis**
8 p.m.—Warren Hospital, Phillipsburg
(Sponsored by Academy of Medicine of New Jersey)

- 25 **Total Body Scanning**
7:15-10:15 p.m.—Hospital Center at Orange
(Sponsored by New Jersey Radiological Society
and Academy of Medicine of New Jersey)

May

- 1 **Fate of Internship**
1 p.m.—Rutgers Medical School, Piscataway
(Sponsored by Association of Hospital Directors
of Medical Education and Academy of Medicine)
- 1 **Environmental Cancer in the Year 2000**
- 8 **Unusual Causes of Heart Failure and Their
Management**
- 15 **Hemorrhagic Septic Shock**
- 22 **New Development in Infectious Diseases**
- 29 **ENT in Office Practice**
9-11 a.m.—Middlesex General Hospital,
New Brunswick
(Sponsored by Middlesex Hospital, AAFP, and
Academy of Medicine of New Jersey)
- 1 **Coagulation Defects**
- 22 **Eye Manifestations of Systemic Diseases**
- 29 **Early Recognition of Brain Tumors**
8-9:15 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Helene Fuld Hospital and
Academy of Medicine of New Jersey)
- 3 **Differential Diagnosis of Jaundice**
9 a.m.—St. Francis Hospital, Trenton
(Sponsored by Academy of Medicine of New
Jersey)
- 7 **Annual Dinner Meeting**
Chantier Restaurant, Millburn
New Jersey Dermatological Society
- 9 **Annual Meeting**
9 p.m.—Carriage Trade, East Orange
(Essex County Medical Society)
- 11- **Annual Meeting**
- 14 **Atlantic City, New Jersey**
The Medical Society of New Jersey
- 14 **Proper Use of Antibiotics**
9 p.m.—Bayonne Hospital, Bayonne
(Sponsored by AAFP and Academy of Medicine
of New Jersey)
- 15 **Transfer Factor and Its Use in Bacterial and
Fungal Infection**
11:30 a.m.—Veteran's Administration Hospital,
East Orange
(Sponsored by CMDNJ Pulmonary Disease Sec-
tion and Academy of Medicine of New Jersey)
- 15 **Blood Gases**
11:30 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by AAFP and Academy of Medicine
of New Jersey)
- 16 **Therapy Sessions**
Pascack Valley Hospital, Westwood
(Sponsored by New Jersey Radiological Society
and Academy of Medicine of New Jersey)

- 17 **Clinical Endocrinology**
11 a.m.—Perth Amboy General Hospital,
Perth Amboy
(Sponsored by AAFP and Academy of Medicine
of New Jersey)

- 21- **Mid-Atlantic Health Assembly**
23 Atlantic City

- 22 **Psychiatry-Suicide**
1 p.m.—Trenton Psychiatric Hospital, Trenton
(Sponsored by Academy of Medicine of New
Jersey)
- 23 **Arthrography**
7:15-10:15 p.m.—Hospital Center at Orange
(Sponsored by New Jersey Radiological Society
and Academy of Medicine of New Jersey)
- 24 **Management of the Fetus at Rest**
CMDNJ—New Jersey Medical School, Newark
(Sponsored by New Jersey Medical School and
Academy of Medicine of New Jersey)
- 29 **The Problem Fetus**
CMDNJ—New Jersey Medical School, Newark
(Sponsored by New Jersey Medical School and
Academy of Medicine of New Jersey)
- 29 **Annual Awards Dinner**
6:30 p.m.—Chantier Restaurant, Millburn
Academy of Medicine of New Jersey

June

- 5 **Spinal Cord Lesions**
- 19 **Stroke Syndrome**
8-9:15 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Helene Fuld Hospital and
Academy of Medicine of New Jersey)
- 5 **Stress and the Gastrointestinal Tract**
2-5 p.m.—Roche Laboratories, Nutley
(Sponsored by Academy of Medicine of New
Jersey)
- 11 **Medical-Legal Aspects of Medicine in Surgery**
9 p.m.—Bayonne Hospital, Bayonne
(Sponsored by AAFP and Academy of Medicine
of New Jersey)
- 17 **Diagnosis in Neurology and Neurosurgery**
1 p.m.—Ancora Psychiatric Hospital, Hammonton
(Sponsored by AAFP and Academy of Medicine
of New Jersey)
- 20 **Diagnosis of the Anemic Patient**
11:30 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by AAFP and Academy of Medicine
of New Jersey)
- 25 **Sarcoidosis**
8 p.m.—Warren Hospital, Phillipsburg
(Sponsored by Academy of Medicine of New
Jersey)

SUPPORT THE WIDOWS AND ORPHANS SOCIETY

208th ANNUAL MEETING

May 11 - 14, 1974

Haddon Hall

Atlantic City

- Scientific Sessions approved for AMA Category I, hour-for-hour credit
- Demonstration and Refresher Courses (accredited) presented by American Heart Association and Roche Laboratories
- Exhibits—Informational
 - Scientific
 - Technical
- Entertainment and Dancing
 - Harold Ferrin's Big Band—Barbershoppers' Chorus
 - Hawaiian Orchestra, Dancers, and Singers
 - New Orleans Jazz Combo—Benny Goodman Sextet

CARNIVAL USA WEEKEND

(See reservation form, page 219, this issue)

OBITUARIES

Dr. Hans D. Brodek

At the untimely age of 52, Hans D. Brodek, M.D., a member of our Bergen County Medical Society, died on January 7, 1974. Dr. Brodek was a 1947 graduate of the Medical School of the University of Cincinnati and, after a two-year tour of duty in the Army Medical Corps, he entered the general practice of medicine. Later, Dr. Brodek became interested in psychiatry and limited his practice to that field. In recent years, he had been associated in a full-time capacity with Bergen Pines County Hospital in Paramus. He was a member of the American Psychiatric Association.

Dr. Noah Feldman

Noah Feldman, M.D., a practicing ophthalmologist in Irvington for many years, died on January 11, 1974 in Houston, Texas. Born in 1909, Dr. Feldman was a graduate of the Medical School at Emory University, class of 1933. He was board-certified in his specialty and was chief of the department of ophthalmology at Irvington General Hospital. He

was also associated with the Eye and Ear Infirmary in Newark, the Veterans Hospital in East Orange, and St. Barnabas Medical Center in Livingston. His membership in professional organizations included the American Academy of Ophthalmology and Otolaryngology and the New Jersey Society of Ophthalmology and Otolaryngology.

Dr. David D. Fischer

One of Newark's well-known pediatricians, David D. Fischer, M.D., died on November 19, 1973. Born in 1911, Dr. Fischer was graduated from the Hahnemann Medical College in Philadelphia, class of 1937. He was on the pediatric staffs of Beth Israel, St. James, and Babies Hospitals in Newark.

Dr. George M. Fissell

On November 14, 1973, George M. Fissell M.D., a Newark ophthalmologist, died following a brief illness. He was graduated from Georgetown University's School of Medicine in 1935, and after a period of general practice and three years' service in the medical department of the U.S. Navy, he entered the field of ophthalmology, becoming board certified in

that specialty. Dr. Fissell was a Fellow of the American College of Surgeons, and a member of the American Academy of Ophthalmology and Otolaryngology and the New Jersey Society of Ophthalmology and Otolaryngology. He had been a member of the attending staff at Martland Hospital, at the Eye and Ear Infirmary, and at Presbyterian Hospital in Newark. Dr. Fissell was 63 years old at the time of his death.

Dr. Allen L. Goldstein

On the last day of 1973, death cut short the promising career of Allen L. Goldstein, M.D., one of our members from Somerset County. Born in 1939, Dr. Goldstein was graduated from Albany Medical College in 1968 and, following internship, took a three-year residency in ophthalmology at the University of Missouri Medical Center. In 1972 he had begun the practice of his chosen specialty in Somerville and was associated with the Somerset Hospital there.

Dr. Herbert M. Ill

One of Essex County's senior practitioners, Herbert M. Ill, M.D., died on December 5, 1973, at the age of 77. He was graduated from Columbia University's College of Physicians and Surgeons in 1923 and had been engaged in the practice of urology in the Newark area until retirement in 1965. Dr. Ill was a Fellow of the American College of Surgeons and a member of the American Urological Association. He had been associated with St. Barnabas Medical Center in Livingston, Mountainside Hospital in Montclair, and the East Orange General Hospital. Dr. Ill was elected to Emeritus Membership in 1966 and was a 1973 recipient of MSNJ's Golden Merit Award.

Dr. Joseph C. Jordan

One of Monmouth County's senior members, Joseph C. Jordan, M.D., died in Venice, Florida, on January 13, 1974. Born in 1899, Dr. Jordan was a graduate of the Hahnemann Medical College, class of 1925, and had been a general practitioner in Manasquan for 46 years, before retiring to Florida in 1972. He

had been on the staff at the Point Pleasant Hospital, and during World War II served his country in the Army Medical Corps.

Dr. Albert E. Kay

Albert E. Kay, M.D., a general practitioner in the Merchantville area, died on January 22, 1974, at the age of 68. He received his doctor of medicine degree from the University of Maryland Medical School in 1930. In addition to private practice, he was, for many years, associated with the Veterans Administration regional office in Camden. Dr. Kay was a member of the American Academy of Family Practice. During World War II, he was a medical officer in the Army Air Corps.

Dr. Miles T. Long

On December 13, 1973, death brought to a close the long and dedicated career of Miles T. Long, M.D., a Jersey City general practitioner of more than fifty years. Dr. Long received his medical degree from the Medical College of the University of Virginia in 1916 and immediately enlisted in the Army Medical Corps. At the close of World War I, he continued in government work with the United States Public Health Service until 1920, when he opened a private office for the general practice of medicine. He was on the staff at the Fairmont Hospital in Jersey City and was active in many civic affairs in his home community. Dr. Long was 85 years old at the time of his death and had been the recipient of MSNJ's Gold Merit Award in 1966.

Dr. Ralph Miller

One of Essex County's senior practitioners, Ralph Miller, M.D., of Newark, died on December 7, 1973, at the age of 67. A graduate of the Medical School of the University of Pennsylvania in 1931, he specialized in internal medicine and became board-certified in that field. Dr. Miller's particular interest was in cardiology and he had held staff appointments in that department at Clara Maass Hospital in Belleville, at St. Michael's and

Martland Hospitals in Newark, and at the Veterans Administration Hospital in East Orange. He was active in civic affairs in his home community and had been chief of the cardiac clinic at the Newark Department of Health.

Dr. Nicholas R. Musulin

Nicholas R. Musulin, M.D., a member of our Camden County component, died suddenly on January 16, 1974. He was a 1937 graduate of the University of Pittsburgh Medical School and had practiced general surgery in the Camden area for many years. He was a Fellow of the American College of Surgeons and held staff appointments in the departments of surgery at Cooper Hospital in Camden and at Zurbrugg Memorial Hospital in Riverside. Dr. Musulin was in the 61st year of his age.

Dr. Bertram S. Perham

Word has just been received that Bertram S. Perham, M.D., one of the members of the medical staff at the Overbrook-Essex County Hospital Center in Cedar Grove, died on November 7, 1973. Born in 1903 and a graduate of Tufts Medical College in 1930, Dr. Perham had been a general practitioner in the Montclair area before accepting appointment as a full-time staff physician at Overbrook. He had formerly been on the attending staff at Mountainside Hospital in Montclair. Dr. Perham was a member of the American Academy of Family Practice and had served as a medical officer in the Army Air Corps during World War II.

Dr. Harold Rubin

We have recently learned of the death on November 28, 1973, of one of our members from Monmouth County, Harold Rubin, M.D., in the 69th year of his age. A native of Wisconsin, Dr. Rubin received his doctor of medicine degree in 1929 from the Medical School of Marquette University. He devoted his practice exclusively to urology and was board certified in that specialty. He was senior attending urologist at Monmouth Medical Center, where he had held various other ap-

pointments, including Vice President of the Medical Staff, Director of the Department of Urology, and Director of Medical Education. During World War II, he served in the medical department of the U.S. Army in the Pacific theater.

Dr. Robert B. Sarajian

In Hollywood, California, this past December, death cut short the career of Robert B. Sarajian, M.D., at the untimely age of 35. Formerly of Morris County, and the son of one of our members from Bergen County, Dr. A. M. Sarajian, he was a 1965 graduate of CMDNJ, New Jersey Medical School. Following two years' active duty as a medical officer in the U.S. Army, he established an office for general practice in Netcong, later associating himself with a group practice in Sayreville. He had been associated with the South Amboy General Hospital and was a member of the American Heart Association.

Dr. Leonard Tushnet

One of Essex County's former general practitioners, Leonard Tushnet, M.D., died on November 28, 1973. Born in 1908, Dr. Tushnet was a graduate of Bellevue Medical College, class of 1931. He was on the staff at Irvington General Hospital and had served the people in that area for nearly forty years before retirement in 1970. He was a member of the Academy of Medicine of New Jersey.

Dr. William L. Yeaton

One of Hudson County's senior practitioners, William L. Yeaton, M.D., died on December 17, 1973, at the grand age of 81. He was graduated from Columbia University's College of Physicians and Surgeons in 1918 and practiced general surgery and proctology in the Hoboken-Jersey City area for many years, before retiring in 1967. Dr. Yeaton was a Fellow of the American College of Surgeons, and a member of the prestigious New Jersey Society of Surgeons and of the International Academy of Proctologists. He had been chief of staff at Christ Hospital in Jersey City, as well as chief of surgery and neoplastic services.

BOOK REVIEWS

Outpatient Surgery. George J. Hill, II, M.D., Editor. Philadelphia, Saunders, 1973. Pp. 1079. Illustrations 509. (\$28)

This book is a well-organized, thoroughly referenced compendium of the various surgical disciplines. There are chapters on chest surgery, cardiac surgery, and even one on organ transplantation. Additionally, there are chapters on surgery in the field, in "developing countries," and even one on the design and function of outpatient clinics and emergency rooms.

In the chapter on emergency room design, there is a section devoted to the planning phase in which the author states that "the intended scope of capabilities and the medical and surgical services it (the ER) will offer" must be determined in advance of any plan-drawing or actual construction. Regrettably, the authors did not apply this concept to their book.

While it is well written, with thousands of interesting bits of knowledge, its general concept is directed to surgery in general rather than to outpatient surgery in particular. As such, it falls short of its stated goal of helping "young surgeons, interns, and medical students in their work outside of the regular inpatient hospital wards." It does this in several ways. First, it includes operations and procedures which must necessarily be performed in a major operating room and which frequently require close patient observation for 24 hours as an inpatient. Second, the inclusion of chapters on thoracic and cardiac surgery contain very little information that bears on ER or outpatient needs. The additional inclusion of a chapter on organ transplant speaks for itself, although brave attempts are made to put this on an outpatient basis.

There is a definite need for a book which devotes itself to those diagnostic techniques and skills which are at the budding surgeon's immediate commands in an outpatient setting—to wit, his knowledge combined with his five senses and possibly the addition of a few simple readily available tools such as a stethoscope, an aspirating needle, and an ophthalmoscope-otoscope. Regrettably, this is not that book.

Nevertheless, as a source book on general surgery and as a text on surgery in general, it is well worth inclusion in one's library.

William A. Dwyer, Jr., M.D.

Review of Physiological Chemistry, 14th Edition.

H. A. Harper. Los Altos, California, Lange, 1973. Pp. 527. Illustrated. (Price not given)

This well-known standard textbook needs no introduction to those studying physiological chemistry. Published since 1939 with fourteen revisions, it has been a timely and comprehensive reference book for those interested in metabolism of human beings. The review is a compendium of the aspects of chemistry that are fundamental to the study of biology and medicine, with timely references giving adequate attention to recent discoveries while still serving the original purpose of a more concise source of information than standard textbooks. The book does not pretend to serve the purposes of covering every de-

tailed aspect of the various problems in physiological chemistry, rather it serves to cover the field thoroughly for all practical purposes and certainly would be more than adequate for physicians preparing for board examinations or wishing to have a solid foundation in the principles of metabolism on a chemical basis. It is well illustrated with concise chemical pathways and understandable flow charts.

There is a particularly useful appendix which goes into general and physical chemistry as it applies to mass equilibrium formulas and the better understanding of tissue and cellular chemistry. The same appendix has a basic organic chemistry outline which is useful in the understanding of physiological chemistry for those who have not had a good foundation in organic chemistry. There are also excellent tables on nutrition, body contents, and normal values in other physiological processes.

In general, the book appears to be a useful over-all text for understanding physiological chemistry and it would serve the purposes of medical students, biologists, organic chemists, pharmacologists, and certainly any physician wishing to have a concise, authoritative reference for understanding body chemistry.

Melvin H. Freundlich, M. D.

Infectious Diseases. Edited by J. J. Marr, M.D. Boston, Little Brown, 1973. Pp. 180 (\$11.50)

This book is comprised of twelve chapters written by eight authors most of whom are from the Washington University School of Medicine and Barnes Hospital.

There is discussion of the general principles and guidelines in the management of infectious diseases; also well covered are major infections, including bacterial endocarditis, meningitis, pyelonephritis, gram negative septicemia, streptococcal infections, pulmonary diseases, venereal diseases, and opportunistic infections. The chapter on management of tuberculosis in a community hospital is very good. Although approaches to and schedules of treatment are covered, especially in therapeutic alternatives to penicillin and in the modification of antibiotic regimens in renal failure, the primary emphasis is on underlying disorders, pathophysiology, and methods of diagnosis. However, little or no consideration is given to viral or enteric diseases, fungus, or parasitic disorders.

The text is well-written and readable, with good references, some into 1971. The practicing physician and house officer can gain useful practical knowledge from reading this book, but, its restricted contents make it inadequate as a reference source in spite of its expansive title.

Dominic A. Mauriello, M.D.

The Development of Radiation Protection in Diagnostic Radiology. S. C. Bushong. Cleveland, CRC Press, 1973 Pp. 101 (\$12)

This slim volume which originally appeared as an article in *CRC Critical Reviews in Radiological Sciences* is a fascinating account of the development of our current radiation protection practices and standards from Roentgen's discovery to the present. The historical approach, particularly the description of the progressive decrease in accepted maximal permissible dose, cannot but increase the reader's awareness of the need for constant vigilance to protect patients and professional personnel. There are valuable tables listing all the reports and recommendations of international and governmental commissions. An up-to-date bibliography containing 510 references is appended.

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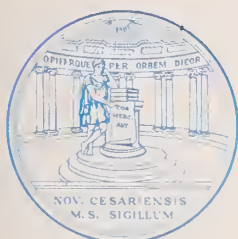
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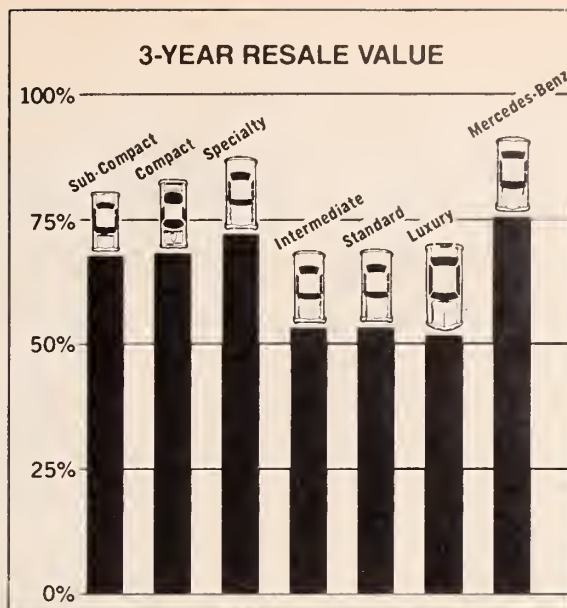
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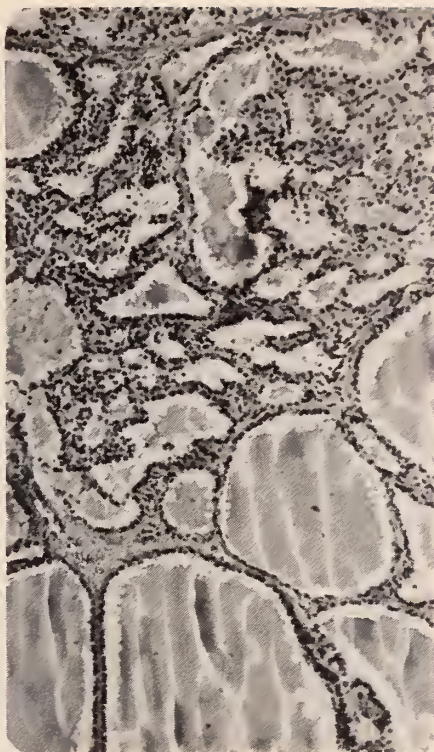
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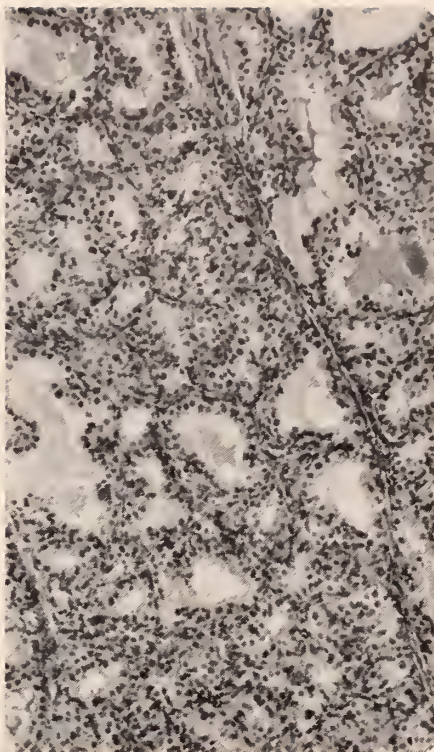
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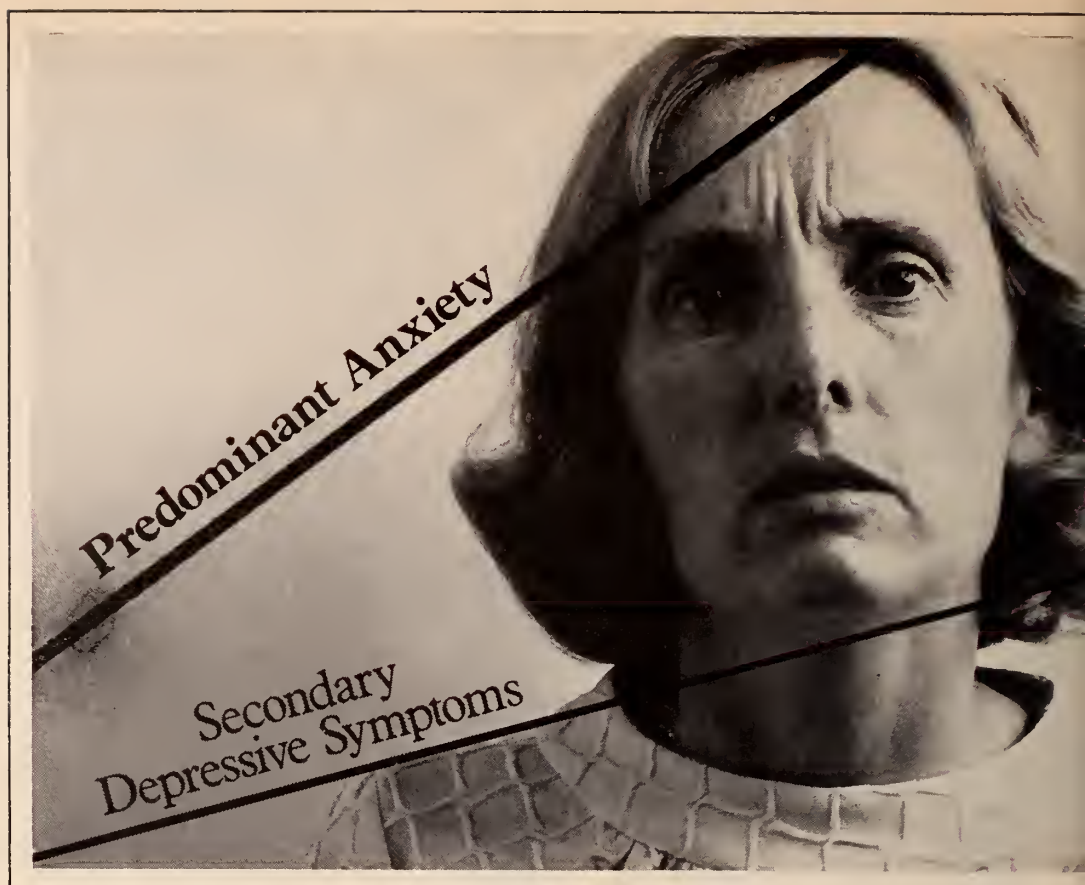
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Precautions: If combined with psychotropics or anticonvulsants, consider carefully pharmacologic agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants may potentiate its action. Usual precautions are indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal

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Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred

vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Valium[®] 2-mg, 5-mg, 10-mg tablets
(diazepam)



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The Medical Society of
New Jersey*

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Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

Indications: Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. Also, mild to moderate hypertension.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (> 5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities.

Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

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The Weight of Professional Opinion

It's time for action to defend the laws and regulations that protect your patients against drug substitution.

**These professional and trade organizations are united
in supporting antisubstitution statutes and regulations:**

The American Academy of Dermatology

The Board of Directors of the
American Academy of Family
Physicians

The Executive Board of the
American Academy of Neurology

The Committee on Drugs of the
American Academy of Pediatrics

The American College of Allergists

The Executive Committee of the
American College of Obstetricians
and Gynecologists

The Board of Regents of the
American College of Physicians

The Board of Trustees of the
American Dental Association

The Board of Trustees of the
American Medical Association

The American Psychiatric Association

The Executive Committee of the
National Association of Retail
Druggists

The Board of Directors of the
Pharmaceutical Manufacturers
Association

The National Wholesale Druggists'
Association



Joint Statement on Antisubstitution Laws and Regulations

The purpose of this statement is to affirm the support of the participating organizations for the laws, regulations and professional traditions which prohibit the unauthorized substitution of drug products.

Traditionally, physicians, dentists and pharmacists have worked cooperatively to serve the best interests of patients. Productive cooperation has been achieved through mutual respect as well as a common concern for the ideals of public service. This mutual respect has been reflected, in part, by joint support over the years for the adoption and enforcement of laws and regulations specifically prohibiting unauthorized substitution and encouraging joint discussion and selection of the source of supply of drug products. The basic principles of medical, dental and pharmacy practice are thus utilized and preserved in the interest of patient welfare.

The antisubstitution laws have not obstructed enhancement of the professional status of pharmacy any more than they have in and of themselves guaranteed absolute protection from unsafe drugs, or freed physicians, dentists and pharmacists from their responsibilities to patients. As a practical matter, however, such laws and regulations encourage interprofessional communications regarding drug product selection and assure each profession the opportunity to exercise fully its expertise in drug usage, to the advantage of patients.

Physicians and dentists should be urged to increase the frequency and regularity of their contacts with pharmacists in selection of quality drug products, recognizing that

economies to patients can be improved through such communication, taking into account the patients' needs. The pharmacist's knowledge of the chemical characteristics of drugs, their mode of action, toxic properties and other characteristics that assist in making drug selection decisions should be utilized to the fullest extent practicable by physicians and dentists in serving their patients.

Since drug product selection entails knowledge derived from clinical experience, the physician's and dentist's roles in product selection remain primary and do not permit delegation of decisions requiring medical and dental judgments. A broader role in therapy will evolve for pharmacists as improved understanding and cooperation among the professions continue to grow.

There has been no evidence that there are convincing reasons to modify or repeal existing laws and regulations prohibiting the unauthorized substitution of another drug product for the one specified by a prescriber. It is our belief that such laws and regulations merit the joint support of the medical, dental and pharmaceutical professions and the pharmaceutical industry.

Add your opinion to the weight of other professionals and send it to your state assemblyman or legislator.

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EDITORIALS

A Salute to Our Advertisers

As we do with the change of the seasons and the love of our spouse, some of us take our *Journal* advertisers for granted. The editorial and management staff of JMSNJ hopes its readers will join them in a salute to the national, state, and local corporations, businesses, agencies, institutions, and associations which favor us with advertisements.

Although we do not discredit the financial remuneration associated with the arrangement, for we surely need that support, we emphasize that there is much more to be considered. We must be aware of the fact that representatives of pharmaceutical houses and other agencies, who are acceptable to *The Journal*, have expended great efforts, large sums of money, and meticulous attention to details of research, clarity of expression, and brevity to provide vital information, literally at the physician's fingertips. This must be done attractively, legally, and ethically, while describing the products and services which may meet our needs and those of our patients.

Our advertisers have selected JMSNJ because it is a unique medium by which to reach the vast majority of physicians in New Jersey. They have also selected us because of the readership quality of state medical journals. The latter was proved by a recent study which utilized an ingenious technique to demonstrate a high degree of penetration into the reading time of physicians by the journal of their own medical society.

Many of our advertisers also assist us in other ways. They support medical research and postgraduate education by grants-in-aid, and they make significant contributions to our Annual Meeting. All of this is done in a manner which conforms to the highest ethical standards of the medical profession. We urge you to take note of each ad and to patronize our advertisers. A.K.

Medicine and the Press

Today, we frequently find highly respected physicians quoted in the press. But most physicians don't like to be interviewed by reporters. They fear that they will be inaccurately quoted, or that words will be correct in text but distorted in emphasis, or that the editors will, in the interest of space-saving, dehydrate the doctor's comments to the point of badly diluting his meaning. All these fears may be justified. The decision about how much of comments to feature and how much of them to omit is a responsibility of the editor, not of the reporter or the interviewed doctor.

Let it be understood, that the public at once does have a right to know about medical discoveries and cannot apply our methods of statistical validation. If an investigator in Sweden or Switzerland reports that some tumors in some mice showed regression when injected with a new chemical, by the time the story breaks, it may be headlined as a new hope for a cancer cure. In the middle of the story there will appear the usual caveat that no such luck has yet been reported in human beings, or that the new chemical affected only very rare and unusual neoplasms. But the average reader won't go into the problem of statistical validation. Actually, so long as the reporter has not put words in the doctor's mouth, the physician can't complain if the editor selected only a few of the words that the doctor uttered.

The very word "news" implies that the story is fresh and new. Hence, there is seldom time for the reporter to send the physician an advance copy of the story as it will appear. Occasionally a reporter may (though this is a courtesy you can't insist on) telephone the doctor and read him the story as it is written. But this is no guarantee that the editor will publish it this way. It may have to be shortened to fit into space requirements and this kind of condensation may alter the emphasis the doctor laid down in the interview.

Reporters can't allow their interview subjects to discourse at length because they are cur-

tailed by both time and space limitations. Also, most readers don't like to read about numbers, and reporters may have to settle for "most of the patients did . . ." Further, if you don't want an item mentioned in the paper, just don't mention it in the interview. You have no right to give interesting and significant material and then say "off the record." Remember too, that out of all the material you give in the interview, the reporter is likely to select for his opening sentence something that you had thought appropriate for the conclusion.

Health is an interesting subject. The public wants to know about it. Medicine needs public support. A friendly press is obviously better than a hostile press. *Verbum sat sapienti.*
H.A.D.

Nothing New Under the Sheets

In line with current fashion, physicians are being criticized for their lack of knowledge of sexual subjects, their reluctance to inquire about and offer advice relative to impotence, frigidity, and other matters related thereto. Pornographic films, slides, and demonstrations have been incorporated into medical school curricula hastily to repair this seeming deficiency. One almost gains the impression that society blames the medical profession by default for the present freedom of sexual expression and action, which has been rampant among certain elements of our population. And yet, the present trend is not really new.

In Lima, Peru, there is an unusual collection of erotic pottery housed in the Museo de Rafael Larco, dubbed the "pornographic museum" by tour guides. The specimens in this rare Pre-Columbian group are truly erotic in theme, but not pornographic. They are, in fact, both historical and educational in their documentation of the sexual life of the primitive peoples of the Mochica-Chimu civilizations.

Inspection of the subjects reveals many examples of traditional heterosexual copulation by nude male and female figures in various positions, as well as the gamut of love's aberrations. The Mochicas displayed their sexual appetites freely in their art, including an undue appreciation of the penis. The phallic representation, in full tumescence and exaggerated in size, is seen in male effigies and on ceramic containers made for maize-beer. The beer was dispensed through the hole of the phallus.

Other works of art depict sodomy and fellatio, with one example of a Sapphic relationship. It is noteworthy that there is no model of male homosexuality, nor any instance of bestiality or zoophilia recorded, although the llama was frequently used in Mochica and Chimu pottery.

The freedom of sexual expression among the young today is clearly not modern. Psychiatrists tend to approve sexual activities, such as fellatio and cunnilingus, if such foreplay eventually brings the two lovers together in normal coition. This did not always appear to be the motivation among these Pre-Columbian tribes, however.

We should note that the Incas who, in 1461, conquered these primitive civilizations, were rather puritanical and regarded sodomy and other forms of seed-wasting sexual activities as abominable.

The present day emancipation in sexual thought and deed has been accomplished by a breakdown in family life and an increase in mental and emotional instability and adjustment problems among certain groups. Deviant personalities in male homosexual associates and mixed heterosexual communes have been involved in mass murder in Texas and California, while venereal disease has become epidemic in proportion in some areas. Is it possible that history may repeat itself? This self-destructive life style may well be a modern Inca-equivalent, which may result in the ultimate disappearance of these subcultures.

A.K.

the
JOURNAL
OF THE MEDICAL SOCIETY OF NEW JERSEY

THE JOURNAL IS A UNIQUE MEDIUM—it is the only publication that prints news about New Jersey State activities and activities within the State in terms of a physician whose practice is in this State. Countless items could be detailed whereby our editorial and scientific copy constitutes the primary, if not the only, source of information of vital interest to our members. Here are a few: decisions of the Board of Trustees of The Society; clinic, convention, meeting announcements; state legislation; communicable diseases; medical insurance; PSRO, education, etc.

Further, THE JOURNAL is a unique medium as it provides for the publication of scientific articles pertinent to the practice needs and interests of our members. These scientific articles are written by respected, known colleagues of our members. Authors, who number from a dozen upwards per issue, are personally involved in THE JOURNAL—and their friends and fellow members are involved also.

circulation

9,005



THE JOURNAL PROVIDES AN EXCELLENT DEMOGRAPHIC PROFILE WITHIN A SPECIFIC GEOGRAPHIC AREA. General Practitioners as well as specialists are the readers of our advertisements. Within the practice of medicine, we offer a total market; within the geography of our nation and the geography of seasonal, geographic medical needs, we offer a specific market at a saturation level provided by no other publication.

A 1973 MEASUREMENT OF ADVERTISING PAGE TRAFFIC (READERSHIP) of state journals yielded a net traffic measure of 36.1% with no seasonal variation in traffic. The study conducted by Professional Research Analysts clearly shows that state journals are trafficked more than most professional journals. Additional studies are now underway.

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Arthur Krosnick, M.D.

Assistant Editor

Marjorie D. Treptow

Advertising Office

E. Elizabeth Cookson
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1. **GUARANTEED CIRCULATION:** 8,000
2. **SIX MONTH AVERAGE CIRCULATION:** 8,621
3. **MEMBERSHIP CIRCULATION BY COUNTIES OF STATE OF NEW JERSEY**

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Bergen	1,034
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Camden	511
Cape May	53
Cumberland	114
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Gloucester	103
Hudson	563
Hunterdon	65
Mercer	540
Middlesex	468
Monmouth	489
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7. **Mailing Dates:** 5th-6th of Month.

8. **Editorial-Advertising Ratio:** 55%/45% average.

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1/4 vertical	3 3/8	X	4 7/8
1/8 horizontal	7	X	1 1/8
1/8 vertical	3 3/8	X	2 3/8

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 East Stroudsburg, Penna. 18301

208th ANNUAL MEETING

The Medical Society of New Jersey

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Matthew E. Boylan, M.D.
President

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Chairman, Annual Meeting
Committee and Committee
on Scientific Program

John J. Thompson, M.D.
Chairman, Committee on
Scientific Exhibits

Marion R. Walton
Convention Manager

May 11-14, 1974

Chalfonte-Haddon Hall

Atlantic City

1974 Annual Meeting

RESUMÉ OF EVENTS

Registration

Saturday, May 11 from 9:30 a.m. to 4:30 p.m.
 Sunday, May 12 from 9 a.m. to 4:30 p.m.
 Monday, May 13 from 8:30 a.m. to 4:30 p.m.
 Tuesday, May 14 from 9 a.m. to noon

House of Delegates

First Session—Saturday, May 11 at 2 p.m.
 Second Session—Sunday, May 12 at 3:15 p.m.
 Third Session (part I)—Monday, May 13, 3:15 p.m.
 Third Session (part II)—Tuesday, May 14 at 9 a.m.

Reference Committees

Saturday, May 11 at 3 p.m.—
 Reference Committee on Const. and Bylaws
 Reference Committees "A", "B", "D", "G"
 Sunday, May 12 at 10 a.m.—
 Reference Committees "C", "E", "F", "H"

General Session

Sunday, May 12 at 3:45 p.m.—President's Farewell Address; Inauguration of Incoming President; Address of Incoming President

Golden Merit Award

Sunday, May 12 at 4:30 p.m. Honored will be those members of MSNJ who have held the degree of Doctor of Medicine for fifty years. Reception immediately following ceremony.

Motion Picture Theater

Saturday, May 11 at 2 p.m. Sunday and Monday, May 12 and 13 at 10 a.m. and 2 p.m. Program arranged and presented through the cooperation of Roche Laboratories, Division of Hoffmann-LaRoche, Inc., Nutley.

Scientific Program: Sections

Sunday, May 12 at 9 a.m.—
 Emergency Medicine
 Cardiovascular Diseases, Family Practice, Medicine

Sunday, May 12 at 9:30 a.m.
 Radiology, Urology

Sunday, May 12 at 1 p.m.
 Anesthesiology, Ophthalmology, Otolaryngology
 Family Practice
 Medicine, Rheumatism
 Neurosurgery and Neurology
 Psychiatry

Monday, May 13 at 9 a.m.
 Dermatology
 Surgery

Monday, May 13 at 9:30 a.m.
 Allergy, Chest Diseases, Family Practice, Medicine
 Orthopedic Surgery

Monday, May 13 at 10 a.m.
 Physical Medicine and Rehabilitation

Monday, May 13 at 1 p.m.
 Gastroenterology and Proctology
 Pediatrics, Plastic and Reconstructive Surgery

Convention Reception—Saturday, May 11
 5:30 to 7:30 p.m.—Cocktails

6 to 8:30 p.m.—Dinner
 9 to midnight—Dancing and entertainment
 (Boardwalk Barbershoppers Chorus)

Inaugural Reception—Sunday, May 12
 (Honoring President-Elect Rogers)
 6:30 to 8 p.m.—Cocktails and Hors d'oeuvres
 Hawaiian Music and Entertainment
 8 p.m.—Luau—Polynesian Feast
 8 p.m. to midnight—Dancing and Entertainment
 Hawaiian Orchestra, Native Dancers,
 Singers, Sword Dance

President's Reception—Monday, May 13
 (Honoring President Boylan)
 6:30 to 8 p.m.—Cocktails and Entertainment
 New Orleans Jazz Combo

Dinner Dance—Monday, May 13, 8 p.m.
 (Honoring President and Mrs. Boylan)
 Dancing and Entertainment
 Benny Goodman and his Sextet in Concert

Miscellaneous

Saturday, May 11 at 10:30 a.m.—Meeting, New Jersey Committee on Trauma; 12 noon—Luncheon; 1 p.m.—Annual Spencer T. Snedecor Trauma Oration

Sunday, May 12 and Monday, May 13 at 8 a.m.—
 Problem-Oriented Medical Records

Sunday, May 12 at 12 noon—Luncheon Meetings:
 New Jersey State Society of Anesthesiologists
 New Jersey Academy of Ophthalmology and Otolaryngology
 Section on Neurosurgery and Neurology

Sunday, May 12 at 1 p.m.—Luncheon Meeting
 New Jersey Chapter, American College of Emergency Physicians

Sunday, May 12 at 4:30 p.m.—Meeting
 Society for the Relief of Widows and Orphans of Medical Men of New Jersey

Sunday, May 12 at 5:30 p.m.—Alumni Reception
 Jefferson Medical College

Monday, May 13 at 8:00 a.m.—JEMPAC Breakfast Meeting

Monday, May 13 at 10 a.m.—Meeting, New Jersey Obstetrical and Gynecological Society

Monday, May 13 at 10:30 a.m.—Meeting, New Jersey Chapter, American Academy of Pediatrics, Luncheon following

Monday, May 13 at 12 noon—Luncheons:
 New Jersey Society of Physical Medicine and Rehabilitation
 New Jersey Dermatological Society

Monday, May 13 at 12:30 p.m.—Luncheons:
 New Jersey Allergy Society
 New Jersey Chapter, American College of Chest Physicians
 New Jersey Medical Women's Association
 New Jersey Orthopaedic Society

Monday, May 13 at 1 p.m.—Medicaid Symposium
 Monday, May 13 at 5:30 p.m.—Alumni Reception
 Hahnemann Medical College

1974 Annual Meeting

Carnival USA

DAILY SCHEDULE

Saturday through Tuesday
May 11 to 14, 1974

Chalfonte-Haddon Hall
Atlantic City

Friday, May 10, 1974

4:00 p.m.—Board of Trustees—Bakewell Room, 1st Floor, H H

Saturday, May 11, 1974

9:30 a.m.—Registration Opens—Exhibit Hall, Lobby Floor, H H

10:30 a.m.—Meeting: New Jersey Committee on Trauma, American College of Surgeons—Pavilion, 15th Floor, HH

12 noon—Exhibits Open—Exhibit Hall, Lobby Floor, H H

12 noon—Luncheon—New Jersey Committee on Trauma, American College of Surgeons—Navajo Room, 15th Floor, H H

1:00 p.m.—Annual Spencer T. Snedecor Trauma Oration—New Jersey Committee on Trauma, American College of Surgeons—Pavilion, 15th Floor, H H

2:00 p.m.—House of Delegates—Windsor Room, Lobby Floor, H H

2:00 p.m.—Motion Picture Theatre—Library, Lobby Floor, H H

3:00 p.m.—Reference Committees: Constitution and Bylaws—Mandarin Room, Tower Floor, H H
 "A"—Rutland Room, 1st Floor, H H
 "B"—Room 1333, Tower Floor, H H
 "D"—Room 1337, Tower Floor, H H
 "G"—Bakewell Room, 1st Floor, H H

5:00 p.m.—Nominating Committee—Bakewell Room, 1st Floor, H H

5:30 to

7:30 p.m.—Convention Reception—Stair Hall, Lounge Floor, H H

6:00 to

8:30 p.m.—Dinner—Wedgewood Room, Lounge Floor, H H

9:00 p.m. to midnight—Dancing and Entertainment—Pennsylvania Room, Lounge Floor, H H
 (Boardwalk Barbershoppers Chorus and Quartets)

Sunday, May 12, 1974

8:00 a.m.—Problem-Oriented Medical Records—Solarium, Lounge Floor, H H

9:00 a.m.—Registration and Exhibits Open—Exhibit Hall, Lobby Floor, H H

9:00 a.m.—Scientific Sessions:
 Emergency Medicine—Derbyshire Room, 1st Floor, H H
 Cardiovascular Diseases, Family Practice, Medicine—Garden Room, Lounge Floor, H H

9:30 a.m.—Scientific Session:
 Radiology, Urology—Rutland Room, 1st Floor, H H

10:00 a.m.—Motion Picture Theatre—Library, Lobby Floor, H H

10:00 a.m.—Reference Committees:
 "C"—Sun Porch, Lounge Floor, H H
 "E"—Room 1337, Tower Floor, H H
 "F"—Room 1333, Tower Floor, H H
 "H"—Mandarin Room, Tower Floor, H H

12 noon—Luncheons:
 New Jersey State Society of Anesthesiologists—West Room, Tower Floor, H H
 New Jersey Academy of Ophthalmology and Otolaryngology—West Room, Tower Floor, H H
 Section on Neurosurgery and Neurology—Wedgewood II, Lounge Floor, H H

1:00 p.m.—Luncheon—New Jersey Chapter, American College of Emergency Physicians—Peacock Lounge, Lounge Floor, H H

1:00 p.m.—Scientific Sessions:
 Anesthesiology, Ophthalmology, Otolaryngology—West Room, Tower Floor, H H
 Family Practice—Garden Room, Lounge Floor, H H
 Medicine, Rheumatism—Rutland Room, 1st Floor, H H
 Neurosurgery and Neurology—Wedgewood II, Lounge Floor, H H
 Psychiatry—Derbyshire Room, 1st Floor, H H

2:00 p.m.—Motion Picture Theatre—Library, Lobby Floor, H H

3:15 p.m.—House of Delegates (election)—Windsor Room, Lobby Floor, H H

3:45 p.m.—General Session: Addresses by President Boylan and President-Elect Rogers—Windsor Room, Lobby Floor, H H

4:30 p.m.—Golden Merit Award Ceremony—Windsor Room, Lobby Floor, H H
 Reception for GMA Recipients and Their Families—Derbyshire Room, 1st Floor, H H

4:30 p.m.—Meeting: Society for the Relief of Widows and Orphans of Medical Men of New Jersey—Bakewell Room, 1st Floor, H H

5:30 p.m.—Alumni Reception—Jefferson Medical College—Suite in Haddon Hall

6:30 to

8:00 p.m.—Inaugural Reception Honoring President-Elect Rogers—Stair Hall, Lounge Floor, H H
 (Hawaiian Music and Entertainment)

8:00 p.m.—Luau—Polynesian Feast—Pennsylvania Room, Lounge Floor, H H

8:00 p.m. to
midnight—Dancing and Entertainment
(Hawaiian Orchestra, Native Dancers,
Singers, Sword Dance)

Monday, May 13, 1974

- 8:00 a.m.—JEMPAC Breakfast and Meeting—
Wedgewood II, Lounge Floor, H H
- 8:00 a.m.—Problem-Oriented Medical Records—
Solarium, Lounge Floor, H H
- 8:30 a.m.—Registration Opens—Exhibit Hall, Lob-
by Floor, H H
- 9:00 a.m.—Exhibits Open—Exhibit Hall, Lobby
Floor, H H
- 9:00 a.m.—Scientific Sessions:
Dermatology—Derbyshire Room, 1st
Floor, H H
Surgery—Rutland Room, 1st Floor H H
- 9:30 a.m.—Scientific Sessions:
Allergy, Chest Diseases, Family Prac-
tice, Medicine—Garden Room, Lounge
Floor, H H
Orthopaedic Surgery—Vernon Room,
Lounge Floor, H H
- 10:00 a.m.—Scientific Session:
Physical Medicine and Rehabilitation
—Pennsylvania Room III, Lounge
Floor, H H
- 10:00 a.m.—Meeting:
New Jersey Obstetrical and Gyneco-
logical Society—Bakewell Room, 1st
Floor, H H
- 10:00 a.m.—Motion Picture Theatre — Library,
Lobby Floor H H
- 10:30 a.m.—Meeting—New Jersey Chapter, Ameri-
can Academy of Pediatrics—Mandarin
Room, Tower Floor, H H
- 12 noon—Luncheons:
New Jersey Society of Physical Medi-
cine and Rehabilitation—Pennsylvania
Room III, Lounge Floor, H H
New Jersey Dermatological Society—
Derbyshire Room, 1st Floor, H H

- 12:30 p.m.—Luncheons:
New Jersey Allergy Society—Peacock
Lounge, Lounge Floor, H H
New Jersey Chapter, American College
of Chest Physicians—Tower Room,
Tower Floor, H H
New Jersey Medical Women's Associa-
tion—Roberts Room, Chalfonte
New Jersey Orthopaedic Society—
Wedgewood Room II, Lounge Floor,
H H
- 1:00 p.m.—Scientific Sessions:
Gastroenterology and Proctology—
Rutland Room, 1st Floor, H H
Pediatrics, Plastic and Reconstructive
Surgery—Mandarin Room, 1st Floor,
H H
- 1:00 p.m.—Medicaid Symposium—Vernon Room,
Lounge Floor, H H
- 2:00 p.m.—Motion Picture Theatre—Library, Lob-
by Floor, H H
- 3:15 p.m.—House of Delegates—Windsor Room,
Lobby Floor, H H
- 5:30 p.m.—Alumni Reception:
Hahnemann Medical College—Suite in
Haddon Hall
- 6:30 to
8:00 p.m.—President's Reception — Stair Hall,
Lounge Floor, H H
(New Orleans Jazz Combo)
- 8:00 p.m.—Dinner-Dance Honoring President and
Mrs. Boylan — Pennsylvania Room,
Lounge Floor, H H
Dancing and Entertainment
(Benny Goodman and his Sextet in
Concert)

Tuesday, May 14, 1974

- 9:00 a.m.—House of Delegates—Windsor Room,
Lobby Floor, H H
- 12 noon—Registration Closes
- 4:00 p.m.—Board of Trustees—Bakewell Room,
1st Floor, H H

Medicaid Symposium

Monday, May 13, 1974

1:00 p.m.

Vernon Room, Lounge Floor, HH

Moderator: **Arthur Bernstein, M.D.**, Chairman
Committee on Annual Meeting, MSNJ

Speakers: **Mr. William J. Jones**, Director
Division of Medical Assistance and Health Services,
New Jersey Department of Institutions and Agencies

Mr. Thomas Beatty, General Manager
Governmental Health Programs' Department
Prudential Insurance Company of America

Annual Spencer T. Snedecor Trauma Oration

Saturday, May 11, 1974

1:00 p.m.

Pavilion, 15th Floor, HH

Management of Acute Hand Trauma

Robert W. Beasley, M.D., Associate Professor,
New York University School of Medicine, and
Director of Surgical Hand Service, Bellevue
Hospital, New York.

The New Jersey Committee on Trauma of
the American College of Surgeons will pre-
sent its Annual Spencer T. Snedecor Trauma
Oration on Saturday, May 11, during the
208th Annual Meeting of The Medical Society
of New Jersey. Preceding the lecture, there
will be a meeting of the Committee at 10:30
a.m. in the Pavilion and a luncheon at 12
noon in the Navajo Room, 15th Floor, HH.

(Members of The Medical Society of New Jersey
and other physicians are invited to attend.)

Motion Picture Theater

Saturday, May 11, (afternoon)
Sunday, May 12, (morning and afternoon)
Monday, May 13, (morning and afternoon)

Library
Lobby Floor
Haddon Hall

Arranged and Presented Through
Roche Laboratories
Division of Hoffmann-LaRoche, Inc., Nutley

10:00 a.m.—Still Going Places
10:50 a.m.—Building a Drug Abuse Program
11:50 a.m.—Cancer of the Cervix
2:00 p.m.—Changing Boundaries of the Mental Hospital
2:40 p.m.—Human Organ Transplantation
3:20 p.m.—Vasectomy Patient Counseling
3:40 p.m.—Vasectomy Procedures

1974 *Annual Meeting*
CONVENTION RECEPTION
Carnival USA
Saturday, May 11

Cocktails—5:30 to 7:30 p.m.

Dinner—6 to 8:30 p.m.

Dancing—until midnight

Entertainment

Boardwalk Barbershoppers Chorus
Harold Ferrin and the Haddon Hall Big Band

1974 *Annual Meeting*
INAUGURAL RECEPTION
Carnival USA
Sunday, May 12

Cocktails and Music—6:30 to 8 p.m.

Luau—Polynesian Feast—8 p.m.

Dancing—until Midnight

Entertainment

Hawaiian Orchestra, Native Dancers
Singers, Sword Dance

—1974 *Annual Meeting*—
PRESIDENT'S RECEPTION
Carnival USA

Monday, May 13

6:30 p.m.

Cocktails and Entertainment

New Orleans Jazz Combo

—1974 *Annual Meeting*—
DINNER-DANCE
Carnival USA

Monday, May 13

8:00 p.m.

Honoring

President and Mrs. Matthew E. Boylan

Toastmaster

John J. McGuire, M.D., 1st Vice President, MSNJ

Welcome

Mrs. Louis Abbamonte, President
Woman's Auxiliary

Introductions

Mrs. James Brennan, President-Elect
Woman's Auxiliary

James A. Rogers, M.D., President-Elect
The Medical Society of New Jersey

Presentations

Fellow's Key

To: Matthew E. Boylan, M.D., President
By: William J. D'Elia, M.D., Immediate Past-
President

Fellowette's Pin

To: Mrs. Louis Abbamonte, President
Woman's Auxiliary

By: Matthew E. Boylan, M.D., President
The Medical Society of New Jersey

Entertainment

Benny Goodman Sextet in Concert

Dancing until midnight

Harold Ferrin, and the Haddon Hall Big Band

1974 Annual Meeting

GOLDEN MERIT AWARDS

Sunday, May 12

4:30 p.m.

Presiding

Matthew E. Boylan, M.D., President

Master of Ceremonies

Howard D. Slobodien, M.D., Chairman, Council on Public Relations

Marshals

Presidents of Component Societies whose members are receiving awards

The Golden Merit Award, established in 1957, is conferred upon every member of The Medical Society of New Jersey who has held the degree of Doctor of Medicine for fifty years.

Recipients For 1974

County	Member	County	Member
Atlantic	S. Eugene Dalton, M.D. Lawrence Addison Wilson, M.D.	Hudson	Samuel Gerald Scott, M.D. John Carey Talty, M.D. Frank Alfred Wilcox, M.D. Alfred Marius Zitani, Sr., M.D.
Bergen	Vincent Costabile, M.D. Samuel Meyer Friedland, M.D. Arthur William Greenfield, M.D. Maurice B. Kagan, M.D. Walter William Mockett, M.D.	Mercer	Emanuel Azzara, M.D. Frances H. Arthur, M.D. Harry Roemer McPhee, M.D. Howard M. Wiesler, M.D.
Burlington	Albert Oppenheimer, M.D.	Middlesex	David Wesley Anthony, M.D. Philip Sutton Avery, M.D. Nicholas M. Gorog, M.D. Nathan Karshmer, M.D.
Camden	Charles Lewis Starr Brennan, M.D. Ralph Stanger Wright, M.D.	Monmouth	Daniel Valentine Manahan, M.D. Joseph Guy Villapiano, M.D. Franklin Lloyd Wilbur, M.D.
Essex	Marc Clemens Angelillo, M.D. Nicholas A. Antonius, M.D. Maclyn F. Baker, M.D. Eva Topkins Brodtkin, M.D. Henry Andrew Brodtkin, M.D. Lewis Woodbridge Brown, M.D. John Joseph Connolly, M.D. John Kremer deVries, M.D. Hyman Friedman, M.D. Marcus H. Greifinger, M.D. Theodore Hirsch, M.D. Julian Marshall Ney, M.D. Eugene Victor Parsonnet, M.D. Frederick Kristian Poller, M.D. Robert Franklin Roh, M.D. Ralph Neil Shapiro, M.D. Nelson White Sisson, M.D. Robert Rombout White, Jr.	Morris	Theodore Gebirtig, M.D. Antonio O. Hubert, M.D. Alden Park King, M.D.
		Ocean	James Rosario Lomauro, M.D. Blackwell Sawyer, Sr., M.D. Emanuel Mark Sickel, M.D.
		Passaic	Eberhart Henry Kleinman, M.D. Altan Casriel Leibovitz, M.D. Louis Markowitz, M.D. Dennis Martin O'Brian, M.D. Dean Anthony Wry, M.D.
Hudson	Frederick Anthony Cracco, M.D. Moses Dolganos, M.D. Lena Frances Edwards-Madison, M.D. Theodore Herman Elsasser, M.D. John Stephen Madaras, M.D. Lewis Keith Madison, M.D.	Sussex	Frederick John Scott, M.D.
		Union	Henri Ernest Abel, M.D. Emile Henry Boselli, M.D. Wilton Johnson Hallock, M.D. Elton Wallace Lance, M.D.

REFERENCE COMMITTEES

Saturday, 3:00 p.m.

Sunday, 10:00 a.m.

May 11, 1974

May 12, 1974

Reference Committee on Constitution and Bylaws

Mandarin Room, Tower Floor, HH

Reports of the:

Committee on Revision of Constitution and Bylaws

Amendments to Constitution

Amendments to Bylaws

Reference Committee "E"

Room 1337, Tower Floor, HH

Reports of the:

Council on Legislation

Council on Public Relations

Reference Committee "A"

Rutland Room, 1st Floor, HH

Reports of the:

President

Board of Trustees

Secretary

Judicial Council

Executive Director

Committee on Credentials

Reference Committee "F"

Room 1333, Tower Floor, HH

Reports of the:

Council on Medical Services, and its Special Committee on Occupational Health, Workmen's Compensation and Rehabilitation

Council on Mental Health, and its Special Committees on:

Alcoholism

Drug Abuse

Emotional Disorders of Childhood and

Adolescence

Mental Retardation

Neurological and Related Disorders

Reference Committee "B"

Room 1333, Tower Floor, HH

Reports of the:

Treasurer

Committee on Finance and Budget

Committee on Medical Student Loan Fund

Committee on Physicians' Relief Fund

Committee on Project Hope/Vietnam

Committee on Publication

Reference Committee "G"

Bakewell Room, 1st Floor, HH

Reports of the:

Council on Public Health, and its Special Committees on:

Cancer Control

Child Health

Conservation of Vision, Hearing, and Speech

Environmental Health

Maternal and Infant Welfare

Reference Committee "C"

Sun Porch, Lounge Floor, HH

Reports of the:

Medical-Surgical Plan of New Jersey

Committee on Medical Defense and Insurance

Committee on Retirement Plan for Physicians

Reference Committee "H"

Mandarin Room, Tower Floor, HH

Reports of the:

Committee on Annual Meeting, and its Special Committees on:

Scientific Exhibits

Scientific Program

Committee on Honorary Membership

Advisory Committee to the Woman's Auxiliary

Nominations for Emeritus Membership

Reference Committee "D"

Room 1337, Tower Floor, HH

Report of the:

Committee on Medical Education

Committee on Medicine and Religion

Committee on Emergency Medical Care

The Committee on Credentials will meet at the Registration Desk each morning of the meeting.

1974 *Annual Meeting*

HOUSE OF DELEGATES

Saturday, 2:00 p.m.
 Sunday, 3:15 p.m.
 Monday, 3:15 p.m.
 Tuesday, 9:00 a.m.

May 11, 1974
 May 12, 1974
 May 13, 1974
 May 14, 1974

President—Matthew E. Boylan, M.D., Jersey City Secretary—Louis F. Albright, M.D., Spring Lake
 Speaker—Henry J. Mineur, M.D., Cranford
 Vice Speaker—Edward Foord, M.D., Burlington

Sessions

Saturday, May 11, 1974—2 p.m.

First Session
 Invocation
 Rev. Msgr. Joseph A. Beggans
 St. John The Baptist Rectory, Jersey City
 Call to Order by the Speaker
 Henry J. Mineur, M.D.
 Organization of the House
 Transactions of 1973 House of Delegates
 Introduction of Guests and Delegates from Other States
 Annual and Supplemental Reports
 Proposed Amendments to the Constitution and Bylaws
 Resolutions
 New Business
 Announcements

Sunday, May 12, 1974—3:15 p.m.

Second Session
 Report of Nominating Committee
 Election
 President's Farewell Address
 Inauguration of Incoming President

Monday, May 13, 1974—3:15 p.m.

Third Session (Part I)
 Reports of Reference Committees

Tuesday, May 14, 1974—9 a.m.

Third Session (Part II)
 Reports of Reference Committees
 Unfinished Business
 Adjournment

OFFICES TO BE FILLED BY ELECTION—1974 ANNUAL MEETING

Office	Term	From	To	Incumbent and County
President-Elect	1 year	May 1974-May 1975		James A. Rogers Passaic
1st Vice-President	1 year	May 1974-May 1975		John J. McGuire Essex
2nd Vice-President	1 year	May 1974-May 1975		John S. Madara Salem
Secretary	1 year	May 1974-May 1975		Louis F. Albright Monmouth
Treasurer	1 year	May 1974-May 1975		Samuel J. Lloyd Mercer
Trustees				
1st District	3 years	May 1974-May 1977		George L. Benz Essex
2nd District	3 years	May 1974-May 1977		James S. Todd Bergen
5th District	3 years	May 1974-May 1977		*Nicholas E. Marchione Cumberland
Judicial Councilors				
2nd District	3 years	May 1974-May 1977		John L. Olpp Bergen
5th District	3 years	May 1974-May 1977		John A. Surmonte Salem

* Ineligible for re-election, having served 3 consecutive terms.

Office	Term	From	To	Incumbent and County
AMA Delegates:	2 years	Jan. 1975-Dec. 1976		Frank J. Hughes Camden
	2 years	Jan. 1975-Dec. 1976		Joseph R. Jehl Passaic
	2 years	Jan. 1975-Dec. 1976		John F. Kustrup Mercer
	2 years	Jan. 1975-Dec. 1976		Emanuel M. Satulsky Union
AMA Alternate Delegates	2 years	Jan. 1975-Dec. 1976		John J. Bedrick Hudson
	2 years	Jan. 1975-Dec. 1976		Nicholas A. Bertha Morris
	2 years	Jan. 1975-Dec. 1976		A. Guy Campo Gloucester
Delegates and Alternate Delegates to Other States:				
New York:				
Delegate	1 year	1975 Annual Meeting		Albert F. Moriconi Mercer
Alternate	1 year	1975 Annual Meeting		Josiah C. McCracken, Jr. Atlantic
Connecticut:				
Delegate	1 year	1975 Annual Meeting		Warren H. Knauer Union
Alternate	1 year	1975 Annual Meeting		Gastone A. Milano Atlantic
Administrative Councils				
Legislation:				
1st District	3 Years	May 1974-May 1977		John R. Tobey Essex
4th District	3 years	May 1974-May 1977		Meyer L. Abrams Burlington
Medical Services:				
1st District	3 years	May 1974-May 1977		Joseph A. Lepree Union
4th District	3 years	May 1974-May 1977		Charles O. Tyler Camden
5th District	1 year	May 1974-May 1975		†David R. Brewer, Jr. Gloucester
Mental Health:				
1st District	3 years	May 1974-May 1977		Arnold Kallen Essex
2nd District	3 years	May 1974-May 1977		Eugene V. Resnick Bergen
Public Health:				
1st District	3 years	May 1974-May 1977		George L. Erdman Union
4th District	3 years	May 1974-May 1977		Frederick C. Steller Monmouth
Public Relations:				
1st District	3 years	May 1974-May 1977		Frank Y. Watson Essex
4th District	3 years	May 1974-May 1977		John P. Kengeter Ocean
Standing Committees				
Annual Meeting	3 years	May 1974-May 1977		James A. Rogers Passaic
Finance and Budget	3 years	May 1974-May 1977		(a)G. Thomas DeFusco Hudson
Medical Defense and Insurance	3 years	May 1974-May 1977		* Jesse Schulman Ocean
Medical Education	3 years	May 1974-May 1977		Arthur Bernstein Essex
Publication	3 years	May 1974-May 1977		**Arthur Krosnick Mercer
Woman's Auxiliary	3 years	May 1974-May 1977		Frederick W. Durham Camden

† Resigned—Vacancy to be filled by 1974 House.

* Ineligible for re-election, having served 3 consecutive terms.

(a) Must be a member of 1974 House of Delegates.

Resigned upon appointment as Editor of **JMSNJ, October 1, 1973.

Problem-Oriented Medical Records

Presented by Health Management Systems

Sunday and Monday, May 12-13, 1974—8 to 9 a.m.

Solarium, Lounge Floor, HH

(2 credit hours—CMEP, MSNJ)

New Jersey Medical Women's Association

Monday, May 13, 1974

12:30 p.m.

Roberts Room, Chalfonte

Luncheon-Meeting

Panel Discussion

"New Concepts of Breast Disease"

Reservations: Rita Newman, M.D.

12 Bruce Circle

Short Hills 07078

The Medical Society of New Jersey Welcomes the Following Delegates and Guests

American Medical Association

James H. Sammons, M.D., Chairman
Board of Trustees

Mr. Marvin L. Rowlands, Jr., Editor
American Medical News

Connecticut

Morris A. Granoff, M.D.
Official Delegate

Clifford E. Wilson, M.D.
Official Delegate

The Medical Society of New Jersey

Mr. Richard I. Nevin
Executive Director Emeritus

MOTION PICTURE THEATER

Saturday, May 11
Sunday, May 12
Monday, May 13

2 p.m.
10 a.m. and 2 p.m.
10 a.m. and 2 p.m.

Film program presented through the courtesy and cooperation of Roche Laboratories,
Division of Hoffmann-LaRoche, Inc., Nutley

10:00 a.m.

Still Going Places

A practical and objective demonstration of methods to effect the physical, social, and economic rehabilitation of patients who have incurred cardiovascular accidents. It solicits the cooperation of all of the medical disciplines to accomplish this rehabilitation.

(Presented through the courtesy of
Pfizer Laboratories)

10:50 a.m.

Building a Drug Abuse Program

Dr. Jerome H. Jaffe, formerly of the University of Chicago Department of Psychiatry and currently Director, Special Action Office for Drug Abuse Prevention, Executive Office of the President, describes the drug abuse program in Illinois which uses three geographically separated treatment modalities: therapeutic communities, out-patient methadone maintenance, and standard hospital abstinence therapy. "It takes different strokes for different folks." One advantage of the program has been that a patient can transfer without delay from one treatment modality to another if he finds he chose the wrong one for himself. Dr. Jaffe discusses all three treatment methods as well as the re-entry clinics, Tinley Park (the first multimodality unit in the country) and a pilot program aimed at the youth culture.

(Presented through the courtesy of
Roche Laboratories)

11:50 a.m.

Cancer of the Cervix

The object of this film is to show how complex treatment-computations in the gynecological and radiation therapy patient with carcinoma of the cervix can be readily obtained. The film demonstrates the ease in using graphics techniques for presenting a clinical situation. A graphics terminal and computer are used. Using the visual techniques of a 21" television screen, the patients' organs and associated dose distributions are readily displayed. It further demonstrates the use of Xerox teleprocessing data over the telephone wires, including diagnostic films, to the Cooper Hospital so that peripheral institutions can use this computation service on a regional basis.

(Presented through the courtesy of
the Department of Radiological Physics,
The Cooper Hospital, Camden)

2:00 p.m.

Changing the Boundaries of the Mental Hospital

A filmed interview with Dr. Israel Zwerling, Director of the Bronx State Hospital, and Professor of Psychiatry at the Albert Einstein College of Medicine, New York City, explores the interrelationships between the State Mental Hospital and the community mental health centers. These centers, staffed by specially trained personnel, are shown actively fulfilling important roles in the mental health services of the community. The types of patient treated by the centers are photographed while engaging in their daily activities both inside and outside of the facilities. The effectiveness of their therapy in helping to alleviate the damaging effects of isolation from their families and friends is readily apparent, since the patients themselves are interviewed. The changing role of the State Mental Hospital in relation to the growing activity of community health centers is emphasized throughout the film.

(Presented through the courtesy of
Roche Laboratories)

2:40 p.m.

Human Organ Transplantation

This film discusses the medical, surgical, legal, moral, ethical, and personal considerations which are involved in all human organ transplantation. The transplantation team, comprised of a nephrologist, immunologist, surgeon, urologist and infectious disease specialist, discusses with the family practitioner the specific pre- and post-operative roles he faces with a patient who may be eligible for a kidney transplant. This film was developed in cooperation with the American Urological Association and the Baylor School of Medicine in Houston, Texas.

(Presented through the courtesy of
Roerig Division, Pfizer Inc)

3:20 p.m.

Vasectomy Patient Counseling

This film shows a simulated interview between the physician and a couple seeking information concerning vasectomy. All questions that can possibly be asked are answered in simple easy-to-understand language in order to obtain totally-informed consent.

(Presented through the courtesy of
Eaton Laboratories)

3:40 p.m.

Vasectomy Procedures

This film effectively shows all currently employed techniques of performing vasectomy: (1) the conventional vasectomy in which a segment of vas is removed and the cut ends tied with non-absorbable suture, (2) the hemoclip technique in which an occlusive and a crushing clip are applied to both

the distal and proximal ends of the vas after removal of a segment, and (3) the fulguration technique in which after simple vas section the proximal vas is fulgurated by the introduction of a fulgurating needle for a distance of 4 mm. and the external surface of the cut end of the distal vas is similarly treated.

(Presented through the courtesy of
Eaton Laboratories)

1974 *Annual Meeting* SPEAKERS

Ahmad, Iqbal, M.D., Newark

Beasley, Robert W., M.D., New York

Beatty, Thomas, Newark

Bender, Morris, M.D., New York

Bozzo, Alfred R., M.D., Newton

Cannarozzi, Nicholas A., M.D., Montclair

Cohen, Norman N., M.D., Philadelphia

Cordner, Harold J., Jr., M.D., Fort Lee

Crane, Chilton, M.D., Boston

DeFeo, Charles P., M.D., New York

Del Gaizo, Anthony, M.D., Paterson

Del Guercio, Louis M., M.D., Livingston

DePalma, Anthony F., M.D., Newark

Erdman, George L., M.D., Summit

Ford, Lee Thomas, M.D., St. Louis

Frost, Phillip, M.D., Miami Beach

George, James E., M.D., Woodbury

Goldberg, Harold H., M.D., Hackensack

Helfant, Richard, M.D., Philadelphia

Jacobs, George B., M.D., Paramus

Jones, William, J., Trenton

Jordan, William P., M.D., Richmond

Kent, Donald F., M.D., Chatham

Khademi, Mansour, M.D., Newark

Kiernan, Thomas W., M.D., Newark

Kratka, Harold D., M.D., Dover

Lazaro, Eric J., M.D., Jersey City

Lemole, Gerald M., M.D., Philadelphia

Leyden, James J., M.D., Philadelphia

Liss, Henry R., M.D., Chatham

Mansman, Herbert C., Jr., M.D., Philadelphia

Mawdsley, Peter, M.D., Bedford, Mass.

Meriney, David K., M.D., Upper Montclair

Morales, Pablo, M.D., New York

Mueller, Hiltrud, M.D., Worcester, Mass.

O'Bryan, Francis J., M.D., Washington, D.C.

Popkin, George L., Bethpage, N.Y.

Ream, Charles R., M.D., Princeton

Rubacky, Gerald, M.D., Glen Ridge

Rush, Benjamin F., Jr., M.D., Newark

Salvati, Eugene P., M.D., Plainfield

Sanders, R. Douglas, M.D., Wilmington

Scher, Allan J., M.D., Morristown

Segall, David, M.D., Long Branch

Shapiro, Alfred J., M.D., Long Branch

Ship, Arthur G., M.D., New York

Skilbred, L. Arne, M.D., Glen Ridge

Slosberg, Paul S., M.D., New York

Snope, Frank C., M.D., Flemington

Sorger, Martin L., M.D., Glen Ridge

Sullivan, Richard A., M.D., West Orange

Tashjian, Levon D., M.D., Philadelphia

Valdez, Napoleon A., M.D., Paterson

Warburton, Samuel W., Jr., M.D.,

Lambertville

Willick, Martin S., M.D., Teaneck

Winell, Marvin, M.D., Plainfield

Winter, Arthur, M.D., East Orange

Zinn, Stephen A., M.D., Rahway

SCIENTIFIC SECTION OFFICERS

Saturday through Tuesday
May 11-14, 1974

Chalfonte-Haddon Hall
Atlantic City

Allergy

CHAIRMAN—Frederic A. Schulaner, M.D., Westfield
SECRETARY—Carl Dubovy, M.D., Boonton

Anesthesiology

CHAIRMAN—Joseph A. Cox, M.D., Short Hills
SECRETARY—Robert K. Egge, M.D., Maplewood

Cardiovascular Diseases

CHAIRMAN—Lawrence A. Lubow, M.D., Morristown
SECRETARY—Harry A. Roselle, M.D., Englewood

Chest Diseases

CHAIRMAN—John J. Tambascia, M.D., Kendall Park
SECRETARY—Norman Edelman, M.D., Piscataway

Clinical Pathology

CHAIRMAN—Paul T. Wertlake, M.D., Short Hills
SECRETARY—Stephen V. D. Chandler, M.D., Somerville

Dermatology

CHAIRMAN—Alfred J. Shapiro, M.D., Long Branch
SECRETARY—Paul A. Possick, M.D., Westwood

Emergency Medicine

CHAIRMAN—Jack R. Karel, M.D., Hillside
SECRETARY—Daniel J. O'Regan, M.D., Jersey City

Family Practice

CHAIRMAN—Frank C. Snope, M.D., Flemington
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CHAIRMAN—John J. White, M.D., Princeton
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Urology

CHAIRMAN—Anthony Del Gaizo, M.D., Paterson
SECRETARY—Alfred R. Bozzo, M.D., Newton

1974 Annual Meeting

SCIENTIFIC PROGRAM

Sunday, May 12
Monday, May 13

Scientific Section
Sessions

All Sessions Approved for Category I, AMA Physicians Recognition Award,
CME Program, MSNJ

Scientific Section Sessions

Sunday Morning, May 12

Emergency Medicine

(Cosponsored by New Jersey Chapter, American College of Emergency Physicians)

9:00 a.m. Medico-Legal Aspects of Emergency Medical Care

JAMES E. GEORGE, M.D., J.D., Emergency Department, Underwood Memorial Hospital, Woodbury; and President, New Jersey Chapter, American College of Emergency Physicians

Summary not received

10:00 a.m. Adult Respiratory Distress Syndrome (Shock Lung)

CHARLES R. REAM, M.D., Clinical Professor of Medicine, CMDNJ-Rutgers Medical School, Piscataway; and Chairman, Department of Medicine, The Medical Center at Princeton

Conditions associated with shock lung and the pathologic changes in this acute respiratory disease syndrome as well as mechanisms of injury will be discussed. Signs and symptoms of the syndrome, factors complicating the problem, as well as physiologic manifestations of the disease, will be considered. Methods of detection, prevention, and treatment will be presented.

11:00 a.m. Questions and Answers

11:30 a.m. Business Meeting—Election of Officers

12 noon Luncheon—NJACEP

Reservations: Morton Leach, M.D.
Atlantic City Hospital
Atlantic City 08401

1:00 p.m. Visit to Exhibits

Hour-for-Hour Credit, Category I

Sunday Morning, May 12

Cardiovascular Diseases Family Practice, Medicine

(Cosponsored by New Jersey Society of Internal Medicine and American College of Physicians)

9:00 a.m. Coronary Arteriography—Who? When? Why?

RICHARD HELFANT, M.D., Chief, Division of Cardiology, Presbyterian Hospital-University of Pennsylvania Medical Center; and Assistant Professor of Medicine, University of Pennsylvania, College of Medicine, Philadelphia

Coronary Arteriography has evolved from an occasional experimental technique to an established diagnostic tool, a highly accurate method of evaluating the anatomy of normal and diseased coronary arteries. The major indications for coronary arteriography in patients are:

1. Diagnostic Indications
 - (a.) Chest Pain Syndrome
 - (b.) Abnormality of the electrocardiogram
 - (c.) Underlying heart disease associated with obscure arrhythmias
 - (d.) Heart disease of obscure origin
 - (e.) Angina pectoris and aortic valve disease
2. Prognostic Indications
 - (a.) Severity and prevalence of stenoses
 - (b.) Left ventricular contraction abnormalities
 - (c.) Coronary collateral circulation
3. Therapeutic Indications
 - (a.) Myocardial revascularization surgery
 - (b.) Surgery for "mechanical" abnormalities of left ventricle
 - (c.) Rational medical management

It should be emphasized that coronary arteriography has potentially significant hazards and requires considerable experience and attention to detail to minimize the risks. However, under circumstances whereby this procedure is performed by experienced personnel with careful monitoring of cardiac rhythm and adequate facilities for immediate resuscitation, cardioversion, and prompt surgical intervention in case of vascular complications, problems associated with this technique should be minimal.

9:40 a.m. Coronary Artery Surgery—1974

GERALD M. LEMOLE, M.D., Chief, Section of Thoracic and Cardiac Surgery, Temple University Health Science Center, Philadelphia; and Chairman, Department of Surgery, Deborah Heart and Lung Center, Browns Mills

Summary not received

10:20 a.m. Treatment of Cardiogenic Shock

HILTRUD MUELLER, M.D., Director, Department of Cardiology, St. Vincent's Hospital; and Associate Professor of Medicine, University of Massachusetts Medical School, Worcester, Massachusetts

Summary not received

11:00 a.m. Questions and Answers

11:30 a.m. Business Meeting—Election of Officers

11:45 a.m. Visit to Exhibits

Hour-for-Hour Credit, Category I

Sunday Morning, May 12

Radiology Urology

9:30 a.m. Present Status of Therapy of Carcinoma of the Prostate

ANTHONY DEL GAIZO, M.D., Assistant Attending in Urology, St. Joseph's Hospital, Paterson; and Clinical Instructor in Urology, CMDNJ-New Jersey Medical School, Newark

and

ALFRED R. BOZZO, M.D., Attending in Urology, Newton Memorial Hospital, Newton; and Clinical Instructor in Urology, CMDNJ-New Jersey Medical School, Newark

This paper will deal with the diagnosis and staging of the disease and then cover the broad spectrum of present management of surgical, medical, and radiotherapeutic treatment of localized and metastatic carcinoma of the prostate, with some statistical results.

10:30 a.m. Radiotherapy of Carcinoma of the Prostate

ALLAN J. SCHER, M.D., Chief, Department of Radiotherapy, Morristown Memorial Hospital, Morristown

A brief review of the history of treatment of carcinoma of the prostate will be given to show the evolution of the techniques currently used. The

percentage of cases of carcinoma of the prostate that present as inoperable lesions will be discussed, as well as the treatment techniques, results, and complications.

11:00 a.m. Radiography of Urologic Changes in Sickle Cell Anemia

MANSOUR KHADEMI, M.D., Chief of Vascular Radiology, Martland Hospital; and Associate Professor of Radiology, CMDNJ-New Jersey Medical School, Newark.

Sickle cell disease can produce alterations in the excretory urogram, mimicking other disease processes. Papillary necrosis, renal enlargement, blunting and distortion of the calyceal system (sickle cell calycectasis), and poor contrast visualization may be present even without evidence of active urinary disease. Renal arteriography has clarified many of the urographic changes. The most common arteriographic finding was focal cortical hypertrophy, giving rise to distortion and blunting of the calyces. Enlargement of the medullary zone, the second most common finding, accounts for large kidneys in many cases. Other arteriographic findings were scar formation, irregularity and pruning of the arterial tree.

11:30 a.m. Business Meeting—Election of Officers

11:45 a.m. Visit to Exhibits

Hour-for-Hour Credit, Category I

Sunday Afternoon, May 12

Anesthesiology Ophthalmology Otolaryngology

(Cosponsored by New Jersey State Society of Anesthesiologists and New Jersey Academy of Ophthalmology and Otolaryngology)

12 noon Luncheon—New Jersey State Society of Anesthesiologists

Reservations: Mrs. Laura Palma, Executive Secretary, NJ State Society of Anesthesiologists
180 East 21st Street
Paterson 07513

12 noon Luncheon—New Jersey Academy of Ophthalmology and Otolaryngology

Reservations: John Scillieri, M.D.
600 Broadway
Paterson 07514

1:00 p.m. Welcome and Brief Comments by Moderator

JOSEPH A. COX, M.D., Director, Department of Anesthesiology, Saint Barnabas Medical Center, Livingston

1:05 p.m. Anesthesia in Pediatric Ophthalmology

FRANCIS J. O'BRYAN, M.D., Children's Hospital, National Medical Center, Washington

Summary not received

1:35 p.m. Fiberoptic Bronchoscopy

DAVID SEGALL, M.D., Director, Pulmonary Medicine, Monmouth Medical Center, Long Branch; and Associate Professor of Medicine, Hahnemann Medical College and Hospital, Philadelphia

Since the fiberoptic bronchoscope was introduced by Ikeda in 1966, its use has become well established particularly in the United States. Experience over a period of one year in a 500-bed community hospital is described.

In addition to its value in diagnosis, the instrument was found to be invaluable in management of atelectasis during the course of acute respiratory failure. Its value as a teaching instrument is also emphasized.

Review of literature and endoscopic views are presented.

2:05 p.m. Anesthetic Management of Bronchoscopy

R. DOUGLAS SANDERS, M.D., Director, Anesthesia Research Foundation; and Member, Anesthesiology Department Wilmington, Delaware

Summary not received

2:35 p.m. Newer Drugs for Management of Cataract Surgery

HAROLD J. CORDNER, JR., M.D., Attending in Anesthesiology, Hackensack Hospital, Hackensack

Summary not received

3:05 p.m. Discussion

3:30 p.m. Business Meeting—Election of Officers

3:45 p.m. Visit to Exhibits

Hour-for-Hour Credit, Category I

VISIT THE EXHIBITS

Sunday Afternoon, May 12

Family Practice

(Cosponsored by New Jersey Academy of Family Practice)

1:00 p.m. Status of Education for Family Practice in New Jersey

FRANK C. SNOPE, M.D., Chairman, Department of Family Medicine, CMDNJ-Rutgers Medical School, Piscataway

This paper will deal with a discussion of the definition of the terms "family medicine"—"family practice" and will attempt to present the characteristics of the "new" family physician. Educational programs for family practice currently in existence will be discussed in detail and future plans of the Department of Family Medicine at Rutgers Medical School will be outlined. Particularly emphasized will be the current and future development of family practice residency programs in community hospitals and plans for programs in continuing education for the family physician.

1:30 p.m. The Problem-Oriented Medical Record in Office Practice

DONALD F. KENT, M.D., Chatham; Director, Family Practice Residency Program, Overlook Hospital, Summit

1. What Is It?—A medical records-keeping system devised by Dr. Weed which displays the patient's problems and deals with each in a logical fashion.

2. Why Do I Need It?—This is the only technique which enables you to identify exactly what each patient's problem is and the stage of its management. It enables you to establish a disease cross-index file and it facilitates use of the record by other professional personnel (physicians, nurses, and so on.)

3. How Do I Get It?—Transfer to 8 X 2 folders with one family in same folder. Front sheet is the problem list prominently displayed. Diseases or encounters can easily be coded.

2:00 p.m. The "E-Book" and its implication for Family Practice

SAMUEL W. WARBURTON, M.D., Associate Director, Phillips-Barber Health Center, Lambertville; and Clinical Instructor, Department of Family Medicine, CMDNJ-Rutgers Medical School, Piscataway

A simple "pencil and paper" coded classification of disease for family medicine will be discussed. There is useful implementation for practice management, internal and external audit, teaching, continuing education, and research. The sphere of health and disease during a six-month period for several third year family practice residents will be compared to national standards.

2:30 p.m. Questions and Answers

3:00 p.m. Business Meeting—Election of Officers

3:15 p.m. Visit to Exhibits

Hour-for-Hour Credit, Category 1

Sunday Afternoon, May 12

Medicine Rheumatism

(Cosponsored by New Jersey Society of Internal Medicine and New Jersey Rheumatism Association)

1:00 p.m. Back Pain and Related Disorders

NICHOLAS A. CANNAROZZI, M.D., Associate Attending Physician, Mountainside Hospital, Montclair

Discussion will survey most of the common low back pain syndromes seen by the internist-rheumatologist: tumors, trauma, metabolic disorders, inflammatory diseases, infections, circulatory disorders, mechanical causes, and psychoneurotic problems.

Topics will include details of the history and physical examinations with emphasis on the musculoskeletal, vascular, and neurologic systems; particulars of radiographs and laboratory tests relevant to low back syndromes; and strategy of the internist-rheumatologist to treat low back pain syndromes.

2:00 p.m. How the Orthopaedic Surgeon Treats Back Pain and Related Disorders

MARTIN L. SORGER, M.D., Attending Physician, Mountainside Hospital, Montclair; and Instructor of Orthopaedic Surgery, Columbia University College of Physicians and Surgeons, New York

Summary not received

3:00 p.m. Visit to Exhibits

3:15 p.m. Panel Discussion

3:45 p.m. Business Meeting—Election of Officers

Hour-for-Hour Credit, Category I

Sunday Afternoon, May 12

Neurosurgery and Neurology

(Cosponsored by New Jersey Neurosurgical Society and Neurological Association of New Jersey)

12 noon Luncheon: Section on Neurosurgery and Neurology

Reservations: Harold H. Goldberg, M.D.
280 Prospect Avenue
Hackensack 07601

1:00 p.m. Symposium on Treatment of Intracranial Hemorrhage—Subarachnoid Hemorrhage

Introductory Remarks

HAROLD H. GOLDBERG, M.D., Attending Neurologist and Chief, Neurology Section, Department of Internal Medicine, Hackensack Hospital, Hackensack

Medical Management

PAUL S. SLOSBERG, M.D., Associate Professor of Clinical Neurology, The Mount Sinai School of Medicine, New York

The International Randomized Study demonstrated that in (1000) cases of ruptured intracranial aneurysm, medical treatment with hypotension is better than surgical treatment, whether craniotomy or carotid ligation is used. Improvements have been made in both the medical-hypotensive method and the surgical-craniotomy method, the former by the development of additional, more versatile drugs and the latter by the development of additional, microscopic apparatus. Repeated comparison of the results of these two methods continues to favor the medical method, in both the acute stage of rupture and in long-term follow-up.

Surgical Management

GEORGE B. JACOBS, M.D., Chief, Department of Neurosurgery, Pascack Valley Hospital, Westwood; and Clinical Assistant Professor of Neurosurgery, College of Medicine and Dentistry of New Jersey-New Jersey Medical School, Newark

Surgical treatment of intracranial aneurysm is discussed from the point of view of timing of surgery and best surgical approaches, with a stress towards a microneurosurgical operative technique.

Traumatic Intracranial Hemorrhage—Epidural, Subdural, and Intracerebral

Introductory Remarks

HAROLD H. GOLDBERG, M.D.

Surgical Management

HENRY R. LISS, M.D., Clinical Associate Professor of Surgery (Neurology), College of Medicine and Dentistry of New Jersey-Rutgers Medical School, Piscataway

Summary not received

Medical Management

MORRIS B. BENDER, M.D., Henry P. and Georgette Goldschmidt Emeritus Professor of Neurology, The Mount Sinai School of Medicine, New York

Summary not received

2:30 p.m. Panel Discussion

3:00 p.m. Business Meeting—Election of Officers

3:15 p.m. Visit to Exhibits

Hour-for-Hour Credit, Category I

Sunday Afternoon, May 12

Psychiatry

(Cosponsored by New Jersey Psychiatric Association and New Jersey Psychoanalytic Society)

- 1:00 p.m. The Search for Identity in Adolescence**
MARTIN S. WILLICK, M.D., Assistant Clinical Professor, Albert Einstein College of Medicine of Yeshiva University, New York

One of the most essential maturational tasks facing the adolescent is the development of a stable sense of identity. This necessitates a gradual relinquishing of close ties to his parents which often includes a rejection of their values and way of life. This paper explores the nature of that process, the turmoil which occurs during this phase of development, and the attempts to resolve the conflict particularly by choosing new models with whom to identify. A detailed discussion of the psychoanalysis of a young man will illustrate the major themes.

- 2:00 p.m. The Physician as a Parent**
LEVON D. TASHJIAN, M.D., Associate Director, Adolescent Treatment Center, Institute of the Pennsylvania Hospital; and Assistant Professor, Clinical Psychiatry, University of Pennsylvania, Philadelphia

The physician and his family have special stresses upon them as a consequence of his (or her) professional role as a physician. When he is unable to put aside his medical role and to demand that his children respect him in the same way his patients do, when he is unable to be unauthoritarian in his providings to them, when he is intolerant to their questions and conflicts, when he is unreceptive to their advice, then he and his family suffer.

- 3:00 p.m. Business Meeting—Election of Officers**
3:15 p.m. Visit to Exhibits

Hour-for-Hour Credit, Category I

Monday Morning, May 13

Dermatology

(Cosponsored by New Jersey Dermatological Society)

- 9:00 a.m. Introduction**
ALFRED J. SHAPIRO, M.D., Chairman, Section on Dermatology, Long Branch
- 9:05 a.m. Retinoic Acid, 1974**
JAMES J. LEYDEN, M.D., Assistant Professor of Dermatology, University of Pennsylvania, Philadelphia

Vitamin A acid has been found to be useful in the treatment of a variety of cutaneous disorders. The

main uses are in (1) acne vulgaris where it is comedolytic and potentiates the efficacy of antibiotics, (2) Darier's disease, (3) some forms of ichthyosis, (4) hyperkeratosis palmaris and plantaris, (5) verruca vulgaris and (6) in combination with typical steroids in psoriasis.

- 9:30 a.m. Discussion**

- 9:40 a.m. Contact Dermatitis: Allergen Detection and Replacement**
WILLIAM P. JORDAN, M.D., Assistant Professor of Dermatology, Medical College of Virginia, Richmond, Virginia

Allergic contact dermatitis is a potentially curable disorder. Allergens contact the patient in various guises—shoes, clothes, cosmetics, plants, insecticides, and raw industrial chemicals. The presentation will focus on what's new in contact dermatitis from allergens to testing methods.

- 10:05 a.m. Discussion**

- 10:15 a.m. Coffee Break**

- 10:30 a.m. Skin Surgery I: Undermining, Dead Space, Bleeding, Subcutaneous Sutures**
GEORGE L. POPKIN, M.D., Professor of Clinical Dermatology, New York University School of Medicine, New York

Summary not received

- 10:55 a.m. Discussion**

- 11:15 a.m. Modern Use of Corticosteroids in Dermatology**
PHILLIP FROST, M.D., Co-Chief, Skin and Cancer Unit, Mount Sinai Medical Center, Miami Beach

Summary not received

- 11:45 a.m. Discussion**

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- 12 noon Luncheon—New Jersey Dermatological Society**
Reservations: Alfred J. Shapiro, M.D.
279 Third Avenue
Long Branch 07740

The Art of Being A Consultant
CHARLES P. DE FEO, M.D., Associate Clinical Professor, New York University School of Medicine, New York

-
- 1:00 p.m. Business Meeting—Election of Officers**

- 1:15 p.m. Visit to Exhibits**

Hour-for-Hour Credit, Category I

Convention Reception
Saturday, May 11

Monday Morning, May 13

Surgery

(Cosponsored by Academy of Medicine of New Jersey; New Jersey Chapter, American College of Surgeons; CMDNJ-Rutgers Medical School; CMDNJ-New Jersey Medical School, MSNJ's Section on Gastroenterology)

Portal Hypertension with Variceal Hemorrhage—A Questionnaire Course

9:00 a.m. Introduction

BENJAMIN F. RUSH, JR., M.D., Johnson & Johnson Professor of Surgery; and Chairman, Department of Surgery, CMDNJ-New Jersey Medical School, Newark

Summary not received

9:10 a.m. Results of Questionnaire

ERIC J. LAZARO, M.D., Professor of Surgery and Associate Dean for Student Affairs, CMDNJ-New Jersey Medical School, Newark

Summary not received

9:20 a.m. Pathophysiology of Portal Hypertension

LOUIS M. DEL GUERCIO, M.D., Director of Surgery, Saint Barnabas Medical Center, Livingston; and Clinical Professor of Surgery, CMDNJ-New Jersey Medical School, Newark

Portal hypertension and bleeding esophagogastric varices are just two manifestations of a generalized disease associated with hepatic cirrhosis and involving the systemic and pulmonary as well as the splanchnic circulation. Physiologic aberrations include high cardiac output, narrow arteriovenous oxygen difference, and pulmonary renoarterial admixture. The hepatorenal syndrome and other complications following surgery for portal hypertension require an understanding of the basic physiologic defects for proper management.

9:50 a.m. Diagnosis and Indications for Surgery

THOMAS W. KIERNAN, M.D., Instructor in Medicine, CMDNJ-New Jersey Medical School, Newark

Portasystemic shunt surgery, despite lowering patient mortality from varix hemorrhage, does not necessarily increase longevity in patients with portal hypertension. The advent of combined hepatic vein-umbilicoportal catheterization has allowed the clinician a greater understanding of hepatosplanchnic hemodynamics when indicator dilution techniques are employed. He can now assess total hepatic and portal blood flow as well as the physiologic compartments of the diseased liver. Alterations in these parameters through pharmacologic means (e.g. vasopressin) may provide important preoperative information about the potential shunt patient.

10:30 a.m. Coffee Break

10:50 a.m. Surgical Management and Results of Therapy

CHILTON CRANE, M.D., Associate Clinical Professor of Surgery, Harvard Medical School, Boston

Many different anatomic sites, anastomotic techniques, and H-graft arrangements have been recommended to control portal hypertension. Clinical factors such as ascites, hypersplenism, and encephalopathy, when added to variceal bleeding, tend to modify the choice of shunt. Hemodynamic factors such as hepatic out-flow obstruction, reversal of portal vein flow, and cross sectional size of the shunt tend further to confuse the issue. A rationale will be put forward that limits the choice to a single all-purpose shunt.

11:30 a.m. Panel Discussion

Moderator: **BENJAMIN F. RUSH, JR., M.D.**

Panelists: **CHILTON CRANE, M.D.**
THOMAS W. KIERNAN, M.D.
LOUIS M. DEL GUERCIO, M.D.

12 noon Business Meeting—Election of Officers

12:15 p.m. Visit to Exhibits

Hour-for-Hour Credit, Category I

Monday Morning, May 13

Allergy, Chest Diseases, Family Practice, Medicine

(Cosponsored by New Jersey Allergy Society; American College of Physicians; New Jersey Chapter, American College of Chest Physicians; and New Jersey Academy of Family Physicians)

9:30 a.m. Symposium on Bronchial Asthma Pathophysiologic Basis for the Treatment of Bronchial Asthma

DAVID K. MERINEY, M.D., Upper Montclair; Assistant in Internal Medicine and Allergy, Columbia University College of Physicians and Surgeons, New York

Current understanding of the pathogenesis of bronchial asthma suggests that multiple factors are involved. Discussion will center on the various parameters which may predispose or actively contribute to hyper-reactivity of the bronchi in asthma and the resultant obstruction to airflow in the lesser airways. Such topics will include: (1) the interplay of adrenergic and cholinergic receptor systems, (2) chemical mediators of importance, (3) the relationships of immunologic factors, (4) physiologic alterations related to bronchospasm, and (5) the genetic basis of asthma.

10:15 a.m. Treatment of the Acute Asthmatic

HERBERT C. MANSMANN, M.D., Associate Professor of Medicine, and Director of the Division of Clinical Immunology and Pediatric Allergy, Jefferson Medical College, Philadelphia

A systematic practical method to relieve the acute increase in airway resistance seen in asthma will be presented. The therapeutic role of catecholamines, aminophylline, sodium bicarbonate, and steroids will be illustrated. Emphasis will be placed on the indication, expected effect, dosage, safety, and complications of the drugs required. A step-wise approach to the prevention and treatment of acute ventilatory failure, even though a rare occurrence, must be mastered if death secondary to asthma is to be prevented.

11:00 a.m. Cromolyn Sodium—A New Approach in the Management of the Chronic Asthmatic

PETER MAWDSLEY, M.D., Vice-President and Director of Medical Affairs, Fisons Corporation, Bedford, Massachusetts

Summary not received

11:45 a.m. Round Table Discussion

12 noon Business Meeting—Election of Officers

12:15 p.m. Visit to Exhibits

Hour-for-Hour Credit, Category I

12:30 p.m. Luncheon: New Jersey Chapter, American College of Chest Physicians—Annual Selman A. Waksman Lecture

Reservations: John J. Tambascia, M.D.
3542 Route 27
Kendall Park 08824

12:30 p.m. Luncheon: New Jersey Allergy Society

Reservations: Frederic A. Schulaner, M.D.
316 East Board Street
Westfield 07090

JEMPAC BREAKFAST

Monday, May 13, 1974

8 a.m.—Wedgewood Room

No charge for those registered
under the **Carnival USA** week-end

Orthopedic Surgery (May 13)

(Cosponsored by New Jersey Orthopaedic Society)

Moderator: Martin L. Sorger, M.D., Chairman, MSNJ Section on Orthopedic Surgery

9:30 a.m. Surgical Treatment of Gamekeepers Thumb . . . By A New Operation

IQBAL AHMAD, M.D., Assistant Professor of Orthopaedic Surgery, CMDNJ-New Jersey Medical School, Newark

and
ANTHONY F. DePALMA, M.D., Professor of Orthopaedic Surgery, CMDNJ-New Jersey Medical School, Newark

Complete ruptures of the ulnar collateral ligament of the metacarpophalangeal joint of the thumb are very disabling injuries. Acute cases should be repaired primarily. A new operative method has been described to treat the old injuries. The metacarpal head is restored to its normal position in relation to the proximal phalanx. The tendon of the extensor pollicis longus is placed in its original position and held there by fine sutures. The tendon of the extensor pollicis brevis is transferred to the ulnar side of the joint and hooked around the insertion of the adductor pollicis. The results obtained in the cases who were thus treated were satisfactory in every respect.

9:50 a.m. Pitfalls in the Management of Malleolar Fractures

NAPOLEON, A. VALDEZ, M.D., Chief Resident, Department of Orthopedic Surgery, St. Joseph's Hospital and Medical Center, Paterson

Fractures of the ankle are comparably as frequent as fractures about the wrist joint. A brief anatomy of the ankle joint, types of classifications of malleolar fractures by different authors, and the mechanisms of injuries of the ankle are here discussed—all pertinent to the treatment of these fractures. A retrospective study on patients with malleolar fractures was done, and the patients who needed more than one closed reduction or who were brought into the operating room for open reduction and internal fixation were singled out. Factors which contributed to failure of reduction as mentioned by different authors in the past are reemphasized and representative cases are presented.

10:15 a.m. Stress Fractures in Weight Bearing Bones

MARVIN WINELL, M.D., Attending in Orthopaedics, Muhlenberg Hospital, Plainfield

A review is made of eight hundred and forty-two fractures in four hundred and ninety-three patients admitted to an army hospital at a basic training center during the year 1968. Fractures involved all weight-bearing bones from the metatarsals to and including the pelvis. Their general characteristics were:

- (1) Onset occurs without violence.
- (2) Associated with prolonged repetitive impact-type stimulæ.
- (3) Only non-athletically oriented individuals are affected or those athletes who have been inactive for six months or more prior to entry into the army.

(4) In those fractures which are non-displayed, there is usually an absence of any audible snap or any suspicion by the patient that a fracture has occurred.

(5) Pain is the constant outstanding presenting complaint.

(6) A variable degree of edema is usually present.

(7) Blacks are involved but rarely.

Diagnosis and an outline for preventive and rehabilitative treatment is outlined.

10:45 a.m. Coffee Break

11:00 a.m. Experience with Geometric Total Knee Replacements

L. ARNE SKILBRED, M.D., Glen Ridge;
Attending in Orthopaedics, Mountain-
side Hospital, Montclair

and
GERALD E. RUBACKY, M.D., Glen
Ridge; Attending in Orthopaedics,
Mountainside Hospital, Montclair

This paper represents the experience of an orthopedic group with geometric total knee-replacement operations done over the past eighteen months, and a short-term follow-up of twelve patients with thirteen knees. The indications for surgery are reiterated; technical tips are emphasized and illustrated with slides; pitfalls to be avoided are highlighted. Limitations, as well as advantages of this particular joint replacement operation, will be discussed. Lastly, our results will be compared with the results of the geometric total knee replacement being obtained by other orthopedic surgeons throughout the United States.

11:30 a.m. Chemonucleolysis

LEE THOMAS FORD, M.D., Assistant
Clinical Professor of Orthopaedic Sur-
gery, Washington University School of
Medicine, St. Louis, Missouri

Chymopapain is a chondrolytic enzyme that has been used clinically for over ten years in more than 10,000 patients in the United States by about thirty-five investigators. The drug was initially proposed and used clinically by Dr. Lyman Smith of Elgin, Illinois after considerable animal experimentation. It has proved clinically as effective as and, possibly more effective than laminectomies in the lumbar spine for lumbar disc lesions. It is still under clinical investigation by the Food and Drug Administration. The chief complication in its use has been anaphylaxis which has occurred in less than one percent of patients and was fatal to one patient. The author will summarize his clinical and experimental experience with the enzyme.

12:15 a.m. Business Meeting—Election of Officers

12:30 p.m. Luncheon — New Jersey Orthopaedic Society

Reservations: Martin L. Sorger, M.D.
200 Highland Avenue
Glen Ridge 07028

1:30 p.m. Visit to Exhibits

Hour-for-Hour Credit, Category I

Monday Afternoon, May 13

Physical Medicine and Rehabilitation

(Cosponsored by New Jersey Society of Physical Medicine and Rehabilitation)

10:00 a.m. Symposium on Team Concept—Spinal Cord Injury

Urological Involvement of the Spinal Cord Injured Patient

PABLO MORALES, M.D., Chairman and
Professor of Urology, New York Uni-
versity Medical Center, New York

Summary not received

Physiatrist's Role in Spinal Cord Management

RICHARD A. SULLIVAN, M.D., West
Orange; Assistant Professor, Physical
Medicine and Rehabilitation, NYU Med-
ical Center, New York.

A comprehensive program of medical care is outlined for the management of the spinal cord-injured patient, both paraplegic and quadriplegic, under the guidance of the specialist in physical medicine and rehabilitation. The physiatrist's role, as physician and as the director of the team of medical and paramedical professionals in a rehabilitation environment, is outlined as it relates to the comprehensive management of these complex patients. His role in the early post-injury phase (days 1 to 14) in the acute hospital environment and in the rehabilitation phase (14 days +) in the spinal cord center environment is presented.

Neurosurgical Aspects of the Spinal Cord Injury

ARTHUR WINTER, M.D., Attending
Neurosurgeon, Veterans Administration
Hospital, East Orange

Summary not received

11:30 a.m. Business Meeting—Election of Officers

11:45 a.m. Visit to Exhibits

12 noon Luncheon: New Jersey Society of Physical Medicine and Rehabilitation

Reservations: Norman H. Schachtel,
M.D.
Overlook Hospital
Summit 07901

Hour-for-Hour Credit, Category I

Inaugural Reception

Sunday, May 12

Monday Afternoon, May 13

Gastroenterology and Proctology

(Cosponsored by the New Jersey Gastroenterology Society and the New Jersey Proctologic Society)

1:00 p.m. Angiographic Documentation and Analysis of Colonic Bleeding

STEPHEN A. ZINN, M.D., Director, Department of Radiology, Medical Center of Jersey City

Summary not received

1:30 p.m. Colonoscopy and Its Role in Lower GI Hemorrhage

NORMAN N. COHEN, M.D., Mercy Catholic Medical Center, Philadelphia

Summary not received

2:00 p.m. Surgical Management of Massive Colonic Bleeding

EUGENE P. SALVATI, M.D., Head of Section of Colon and Rectal Surgery, Muhlenberg Hospital, Plainfield

Massive colonic bleeding is most frequently caused by diverticulosis and is more common on the right side. Second in order of etiology is bleeding due to Crohn's or ulcerative colitis and lastly, arteriovenous malformations. Other more rare causes may occasionally be seen such as nonspecific ulceration. Sigmoidoscopy, selective arteriography, and colon x-ray are done in that order. Bleeding due to diverticulosis generally subsides spontaneously. A barium enema can be therapeutic. Interarterial vasopressors are new adjuncts but when not available subtotal colectomy is the treatment of choice, unless arteriography indicates the right colon as the source of bleeding. Massive bleeding from Crohn's or ulcerative colitis is managed by pan-proctocolectomy and ileostomy. Arteriovenous malformations when demonstrated by arteriography require resection.

2:30 p.m. The Use of Blood and Blood Fractions in Replacement Therapy

GEORGE L. ERDMAN, M.D., Director of Laboratories and Blood Bank, Overlook Hospital, Summit

A consideration of blood losses with particular reference to massive bleeds in lesions of the gastrointestinal tract with resultant "wash out" of various components of the coagulation mechanism. The pitfalls of replacement therapy including circulatory overload, electrolyte disturbances, and immunohematologic reactions resulting in disseminated intravascular coagulation (D I C) syndrome.

3:00 p.m. Business Meeting—Election of Officers

3:15 p.m. Visit to Exhibits

Hour-for-Hour Credit, Category I

Monday Afternoon, May 13

Pediatrics Plastic and Reconstructive Surgery

(Cosponsored by New Jersey Chapter, American Academy of Pediatrics and New Jersey Society of Plastic and Reconstructive Surgeons)

1:00 p.m. Trauma in Childhood

ARTHUR G. SHIP, M.D., Associate Attending in Plastic Surgery, Montefiore Medical Center, New York

Trauma in children frequently requires the special services of the plastic surgeon. A review of the scope of treatment and special procedures leading to prompt rehabilitation of injured children will be rendered.

1:45 p.m. "How I Do It"

HAROLD D. KRATKA, M.D., Attending in Pediatrics, Dover General Hospital, Dover

First, Why I Do It: Care of trauma associated with excitement and drama—challenge to multiple skills—helps satisfy the adventure most physicians yearn for.

"How" is made easier by being part of a multi-specialty medical group with a five-man deep pediatric department, enjoying x-ray facilities, allowing diagnosis of fractures, continuous nursing staff, wide range of equipment and morning through evening hours. This paper includes care of simple fractures (radius, ulna, hand, fingers, toddler's tibial fracture, lateral malleolus, feet, toes, clavicle) and uncomplicated lacerations (no underlying structures) of most parts of body. Cases complicated by potentially cosmetically deleterious consequences are referred.

2:30 p.m. Questions and Answers

3:00 p.m. Business Meeting—Election of Officers

3:15 p.m. Visit to Exhibits

Hour-for-Hour Credit, Category I

DINNER-DANCE

Monday, May 13, 1974

Dancing—Entertainment

Benny Goodman Sextet

1974 Annual Meeting

INFORMATIONAL EXHIBITS

Saturday, May 11—12 noon to 5 p.m.

Sunday, May 12—9 a.m. to 5 p.m.

Monday, May 13—9 a.m. to 5 p.m.

Academy of Medicine of New Jersey I-210

Union

The exhibit will outline the activities of the Academy of Medicine in providing continuing education programs for the physicians of New Jersey during the past year.

Adolescent Unit I-201

Morristown Memorial Hospital, Morristown

This exhibit describes the working of an adolescent unit in a community hospital. The unit involves in-patient service, out-patient services, walk-in V.D. testing, and an outreach program into schools and community agencies.

Alcohol Program

New Jersey State Department of Health, Trenton

Purposes of the exhibit are to secure general acceptance of the concept that alcoholism is a disease and the alcoholic a sick person who can be helped, and to stimulate and help to develop adequate services in the community for treating the alcoholic, using the facilities of general hospitals and other available community resources to bring about ultimate rehabilitation.

Biomedical and Engineering Shared Technology (BEST) I-208

New Jersey Hospital Association, Princeton

This exhibit is to inform physicians of the purpose and function of the newly organized clinical engineering program of the Hospital Research and Educational Trust. It will illustrate how experienced professional clinical engineers can help hospitals in prevention of accidents, in training and education of their paramedical personnel, in proper and safe use of biomedical instrumentation, and to use, more efficiently, their sophisticated medical equipment. It will show how a clinical engineer, in consultation with the doctor, can design new equipment and redesign, update, and modify existing equipment better to service his specific needs.

Eye Institute of New Jersey I-203

Newark

Purpose of this exhibit is to acquaint the medical profession with the existing services offered by the Institute.

Home Health Agency Assembly of New Jersey, Inc. I-206

Westfield

The exhibit will show the availability of home health services in New Jersey. It will emphasize the many professional services involved in home care. Pic-

tures, charts, a map, and sign will be used to demonstrate the value of health care in the home.

JEMPAC I-207

New Jersey Medical Political Action Committee

Here offered will be a presentation on JEMPAC's effectiveness in political and legislative matters.

Morris Hall Health and Rehabilitation Center I-204

Lawrenceville

Here displayed will be the services of the rehabilitation hospital portion of the institution.

New Jersey Foundation for Health Care Evaluation I-211

Trenton

Purpose of the exhibit is to educate the physicians of New Jersey as to the existence, purpose, and goals of the Foundation; the exhibit will describe what a Foundation is and generalize on the programs and projects it will pursue.

New Jersey Medicaid I-212

Division of Medical Assistance and Health Services, New Jersey Department of Institutions and Agencies, Trenton.

This is a three-panel exhibit illustrating the New Jersey Medical Assistance Program, and providing facts and figures in a graphic form regarding specific areas of physician participation.

Social Security and Rehabilitation I-209

Eric H. Wolf, M.D., Medical Director, Division of Disability Determinations, Department of Labor and Industry, Trenton

The exhibit will present the goals and means for rehabilitation of the disabled, as provided for under the Social Security Administration.

Society for the Relief of Widows and Orphans of Medical Men of New Jersey I-202

Millville

"W and O" established in 1882, is a voluntary, non-profit organization, founded and continuously operated by physicians of New Jersey, to provide for the welfare of widows and children of deceased member-physicians.

VISIT THE EXHIBITS

SCIENTIFIC EXHIBITS

Saturday, May 11—12 noon to 5 p.m.

Sunday, May 12—9 a.m. to 5 p.m.

Monday, May 13—9 a.m. to 5 p.m.

Adolescent and Anxiety Reaction to Parents with Acute Cardiac Conditions S-120

Victor P. Satinsky, M.D., Hahnemann Medical College and Hospital, Philadelphia

Some parents attempt to exact obedience and compliant behavior from their children by using the illness of one of the parents as a coercive force. Such manipulations often cause repression of normal exuberance and reinforcement of hostility toward one or both parents which in turn, engenders guilt feelings with associated need for expiation by self-punishment. Physicians and therapists should be aware of this possible etiology of damage to a child's psyche. Two case reports in support of this thesis are delineated.

Bronchial Artery Flow During Experimental Cardiopulmonary Bypass S-115

Victor P. Satinsky, M.D. and Elizabeth Reid, B.A., Hahnemann Medical College and Hospital, Philadelphia

Twelve dogs were subjected to normothermic cardiopulmonary bypass, without additional operative procedure. Blood flow into the left atrium was measured by gravity drainage against a stopwatch. The aorta was clamped during drainage periods to ensure against the escape of blood by way of the left ventricle. Four significant determinants of bronchial artery flow were noted: (1) total body perfusion, (2) the number of bronchial arteries, (3) the size of the bronchial arteries, and (4) ventilatory movements. The average measurable bronchial artery flows during bypass varied from 2 to 12 per cent of total body perfusion. Highest percentages, 11.4 per cent and 12 per cent, occurred in dogs whose total systemic flows were maintained at relatively constant and relatively high levels, 1500 ml/min throughout the procedure. Low and inconsistent systemic flows yielded low and inconsistent percentages, which in one dog ranged from .24 to 24 per cent. Highest flows occurred when there were two bronchial arteries, 1 mm in outside diameter, while animals disporting a complete absence of bronchial arteries were without atrial infusion. Bronchial artery flow increased during inflation of the lungs and decreased with deflation, an observation which invites easy clinical application.

Cardiopulmonary Resuscitation: Demonstration and Workshop S-126

Klaus Schulz, M.D., American Heart Association, New Jersey Affiliate, Union

The purpose of the exhibit will be to demonstrate the technique of cardiopulmonary resuscitation and to provide opportunity for physicians and others to practice and to self-evaluate their skills on an electronically-controlled manikin.

Control of Cancer of the Uterine Corpus S-112

John F. W. King, M.D., American Cancer Society, Union

This exhibit points out the unchanging mortality rate from cancer of the uterine corpus, and the need for early diagnosis as the key to better control. It emphasizes the importance of a histologic examination of the endometrium in order to detect the precursors of this disease, and presents a flow chart for management of the high-risk patient.

Decline of Mental Function in the Aged . . . Aspects of Etiology and Therapy S-121

H. J. Rosen, M.D., J. J. Nelson, M.D., I. E. Winslow, M.D. and B. C. Einspruch, M.D., Dover

The objectives of this exhibit are (1) to help in the identification of the variable symptom complex commonly called "senility," by differentiating it from the normal aging process and the readily-identifiable chronic diseases (e.g. arthritis, hypertension, diabetes), and (2) to present a comprehensive management program designed to provide relief of the symptoms of senility and help retard declining mental function in the aged.

Dermatologic Disorders in American Troops in Vietnam S-111

Emanuel G. Kuflik, M.D., Lakewood

Tales of bizarre skin diseases and repeated hospitalizations may confuse physicians who are not aware of the cutaneous conditions affecting our troops in the tropics. This exhibit reports on skin disorders suffered by Americans in Vietnam and portrays the environmental factors which contribute to the development of dermatoses in this country.

Double Osteotomy First Metatarsal for Hallux Valgus S-125

Enrique T. Pardon, M.D., Jersey Shore Medical Center, Neptune

Here presented is a new method for correction of hallux valgus deformity for a younger age group of patients with very satisfactory results and with very little possibility of complications.

Early Casting of Femoral Fractures in Children S-101

Anthony F. DePalma, M.D., Gary Flannery, M.D., and H. Clay Irving, M.D., CMDNJ, New Jersey Medical School, Newark

This exhibit is designed to introduce a new method of treatment of fractures in children and to show the newest method of casting of these fractures. Here will be shown 28 patients treated by this method with a two and one-half year follow-up.

Early Results of Total Knee Replacement S-103

Paul A. Lotke, M.D., Marvin E. Steinberg, M.D., and John J. Joyce, M.D., Hospital of the University of Pennsylvania, Philadelphia

The Knee Clinic at the Hospital of the University of Pennsylvania has an ongoing prospective study of total knee replacements. There have been 55 geometric type total knees implanted from May 1972 to December 1973. Experiences with these patients will be the subject of this exhibit. Analysis of patient population, pre- and post-operative results, and complications will be demonstrated. In addition, a brief review of the incidence, clinical findings, diagnosis, and indications for total knee replacement in patients with osteoarthritis and rheumatoid arthritis will be described.

Helium Therapy for the Prevention of Ventricular Fibrillation Following Myocardial Infarction S-114

Victor P. Satinsky, M.D., Robert J. Toltzis, B.A., and Alan G. Toltzis, Hahnemann Medical College and Hospital, Philadelphia

Only one previous investigator, Pifarre, experimentally demonstrated the feasibility of using helium therapy for the prevention of ventricular fibrillation; regrettably, it was employed prior to circumflex coronary artery ligation. In our own laboratory, anticipating clinical application, helium therapy has been used to determine the efficacy of this treatment following ligation of the left anterior descending coronary artery. Of twenty-two control dogs, fourteen (63.6 per cent) developed ventricular fibrillation within two hours of left anterior descending coronary ligation. Twenty dogs which were administered a mixture of 20 per cent helium, 30 per cent oxygen, and 50 per cent compressed air 10 minutes prior to, during, or 10 minutes subsequent to ligation, developed ventricular fibrillation, amenable to defibrillation with the application of a simple electrical countershock. Moreover, the extent of revascularization of the myocardium, determined by the Satinsky methylene blue technique, was apparently favored by helium therapy, beginning within one hour of ligation. Also noteworthy was the observation that animals treated with helium therapy experienced few premature ventricular contractions. This preliminary study indicated that the application of helium therapy subsequent to myocardial infarction is promising and warrants further intensive investigation.

Histological Studies of Various Implanted Anode and Cathode Electrodes S-119

Victor P. Satinsky, M.D., John Cassel, B.S., and Robert Greenberg, Hahnemann Medical College and Hospital, Philadelphia

The feasibility of biogalvanic energy to power several types of pacemakers and telemetry devices has been demonstrated on various occasions. These energy sources in our laboratory have yielded 1.0-1.5 volts with current levels as great as 1 microampere. When a silver-chloride electrode as the cathode and various metals as anodes, e.g., aluminum, magnesium, and zinc, are placed in living tissue, electrochemical energy is evolved. Although power requirements are most crucial in the development of logic circuit systems, the tissue response to foreign bodies must be evaluated before clinical application. To study the tissue reactions of the metals, emulsions of silver, silver-chloride, aluminum, magnesium, and zinc were injected into the gluteus muscle of 25 rabbits. At two

weeks, one month, and two month periods, histological sections of injected sites were made. The rabbits were also tested at specific intervals for the presence of the various metals in the blood and urine. Various degrees of tissue reaction, fibrinoid degeneration, macrophage proliferation, and giant cell formation were seen in all of the samples. Aluminum demonstrated least tissue response and no metal seemed to present a serious detriment to the surrounding tissue. The gross histological and chemical analysis of this study can be used as a guide for the feasibility of chronically implanted electrodes for the generation of bioelectrical energy.

The Hyperkinetic Child . . . Practical Aspects of Management S-122

Mark E. Thoman, M.D., John E. Louck, M.D., Jamie A. Pablonia, M.D. and Janice N. Phelps, M.D., Martha H. Beeman Foundation Child Guidance Center, Niagara Falls, New York

Modern techniques for managing hyperkinetic children are explored. Out-patient treatment is emphasized, and a well-designed, individualized therapeutic program is discussed in terms of selected management procedures and disruptive behavior problems posed by these patients. Additionally, three double-blind studies demonstrate the clinical importance of psychopharmacotherapy in treating the hyperkinetic child.

Ileal Bypass for Morbid (Exogenous) Obesity S-106

Burton B. Bergman, M.D. and Leonard Waldman, M.D., St. Elizabeth's Hospital, Elizabeth

This exhibit will describe ileal bypass surgery, indications for surgery, complications, and pre- and post-operative comparisons.

Likoff-Williams Recording Stethoscope S-118

William Likoff, M.D., Victor P. Satinsky, M.D., and Samuel Williams, Hahnemann Medical College and Hospital, Philadelphia

The system relates to a light-weight, sensitive, battery-operated, portable system of components which makes available a faithful electrical reproduction of the sound pressure waves within a stethoscope. The electrical waves are documented for post-monitoring and permanent recordings of cardiovascular sounds via a highly reliable, accurate, easy to calibrate transducer, special recorder and tape, and a one-inch reproducer which is fully equalized within the recorder for playback. Although stethoscopes in general have a resonant peak in their frequency-response characteristic, centered between 50 Hertz and 200 Hertz, some also have a noticeable upper peak centered between 1500 Hertz and 3000 Hertz. These are primarily due to diaphragm thickness versus mass and the chest-piece chamber volume. They are used to advantage to accentuate certain sounds. It is not the intention of this device to alter or to amplify over and above the sounds within the stethoscope, but to capitalize on the stethoscope's characteristics which have been trusted for many years. As the sound pressure is directed up the plastic tube from the diaphragm of the chest piece to the ear pieces, a small amount is converted to electrical waves. The electrical waves are connected to the tape recorder via a cable-connector assembly. Set the recorder in playback mode and the operator will hear the sounds just as he originally heard them, (sounds below 25 Hertz are heard with clarity). The combined system frequency response is very smooth from 25 Hertz to beyond 4000 Hertz.

Management of Obesity in Diabetic Patients

S-113

Rudolph M. Crommelin, M.D., Portland, Oregon

Purpose of this exhibit is to assist physicians in developing a coordinated, planned weight-control program for their diabetic patients, and to help resolve the special management problem posed by the obese diabetic. Points of concern are the importance of weight control in diabetes therapy, preventive measures, early intervention, goals of treatment, and major therapeutic modalities. For the obese diabetic, the essentials of a comprehensive weight loss program are discussed, and a clinical trial of a new anorectic agent, mazindol, is presented.

Medical Skills Library

S-108

ROCOM Division of Hoffmann-LaRoche Inc., Nutley

The ACP Medical Skills Library utilizes a multimedia approach to physician instruction—combining single concept films with accompanying books which describe the rationale for the technique as well as common errors that can occur.

Modern Cardiac Pacemakers: Identification by X-Ray of All Types: Method of Clinical Use

S-123

Dryden Morse, M.D., Alden Gooch, M.D., Sing S. Yang, M.D., Javier Fernandez, M.D., Gerald M. Lemole, M.D., and Joel Shapiro, M.D., Deborah Heart and Lung Center, Browns Mills

Pacemakers of all types from companies in the United States and abroad will be shown. A large chart of x-rays of all of these will demonstrate radiologic identification techniques. The methods of programing externally controllable pacers from the two largest companies are explained.

Myocardial Temperature Gradients Following Experimental Coronary Ligation and Their Possible Correlation with Ventricular Fibrillation

S-117

Victor P. Satinsky, M.D. and Allen Dozer, Hahnemann Medical College and Hospital, Philadelphia

In 15 dogs, myocardial temperatures were recorded before and after coronary artery ligation to determine if a correlative pattern exists between ventricular fibrillation and temperature gradients. Myocardial temperature recordings in infarcted and noninfarcted areas were correlated with systemic B.P., EKG's, heart rate, and loss of myocardial contractility. The eight animals which survived ligation had temperatures within the ischemic area as much as 1.5° C higher than the surrounding tissue. Fibrillation followed ligation when temperatures within the infarct were between 0° and 1.4° C lower than in the normal myocardium. A mechanism for predictability of fibrillation will be postulated from these findings.

The Pavlik Harness: Treatment of Hip Dysplasia in a Community Practice

S-102

Paul J. Hirsch, M.D. and Stuart A. Hirsch, M.D., Rutgers Medical School, Piscataway

The Pavlik Harness is little known among orthopedists. It is an effective and convenient method for treating hip dysplasia, and is highly acceptable to parents. It emphasizes flexion (rather than abduction), and allows vigorous hip motion. This exhibit will display the harness and demonstrate its

use. X-rays of typical cases and a statistical summary of more than 30 cases, will be included.

Project Mainstream

S-128

Abraham A. Chaplan, M.D., Joan P. Chaplan, Ph.D. and George Salt, Hackensack Hospital, Hackensack

The exhibit will display a video tape and still photographs. There will be presentation of a program for minimally brain-damaged children, a joint venture between the Community Mental Health Center and the Ghetto.

Recognition and Management of Impending and Progressive Myocardial Infarction

S-104

L. Wiener, M.D., H. Kasparian, M.D., A. N. Brest, M.D., J. Y. Templeton, III, M.D., P. Duca, M.D., and A. Auger, B.S., Thomas Jefferson University Hospital, Philadelphia

Objective assessment via coronary blood flow, coronary sinus CPK efflux, and myocardial lactate metabolism identified a group of high risk patients with impending and evolving myocardial infarction. Coronary angiography established the pathologic anatomic extent of coronary atherosclerosis. Emergency coronary revascularization was applied as the principal therapy in these patients. The resultant low surgical morbidity and mortality suggests a new therapeutic approach.

Replacement of the Trachea and Bronchi

S-110

William E. Neville, M.D., J.P. Bolanowski, M.D., Craig Brown, M.D., and Hooshang Soltenzadeh, M.D., CMDNJ, New Jersey Medical School, Newark

This exhibit will describe the experimental replacement of the trachea and bronchi with homologous grafts and silicone prosthesis. It shows how tissue grafts fail even when animals are given suppressive drugs. Good results with the silicone prosthesis are depicted. This is supported by favorable results obtained in man to date.

A Revised View of the Anatomy of the Heart

S-116

Victor P. Satinsky, M.D., Hahnemann Medical College and Hospital, Philadelphia

Traditionally, the heart has been described as consisting of four chambers and has been divided into the right heart and the left heart. Presumably the right atrium and right ventricle lie on the right side of the body, lateral to, and parallel with the left atrium and ventricle. Actually the architecture of the heart should be viewed as a "W" standing on end, both in position and in terms of directional flow. The presenting limb of the "W" would represent the right atrium; the anterior middle limb, the right ventricle; the posterior middle limb the left ventricle; and the inferior leg of the "W" the left atrium. Appropriately, we could then allude to the superior, anterior middle, posterior middle, and the inferior chambers; or perhaps more palatably, superior atrium, anterior ventricle, posterior ventricle, and inferior atrium respectively. Correlating these applications with our knowledge of blood flow, "right and left sides of the hearts" could be replaced by "pulmonary circulation and systemic circulation" and the structures accounting for the pumping action alluded to as "pulmonary pump" and the "systemic pump" respectively. While, admittedly, changing terms accustomed to long usage would be difficult, accuracy should at least be noted.

The Role of Diagnostic Ultrasound in Abdominal Masses S-109

William E. Matthey, M.D., Joel N. Bloom, M.D., and Fernando L. Arevalo, M.D., Saint Barnabas Medical Center, Livingston

The diagnostic benefits of abdominal scanning will be fully illustrated in this exhibit. Diagnostic Ultrasound provides an additional method of examining structures beneath the skin surface. Ultrasound produces a cross-sectional image which has a primary advantage over radiography because of its capability of distinguishing interfaces below the soft tissue structures of the body. This special characteristic, coupled with the fact that ultrasonography is non-invasive and non-traumatic, has proved to be a tremendous aid in providing information as an atraumatic procedure. The criteria for an adequate scan will be illustrated along with representative cases.

Scoliosis S-107

Robert Fernandez, M.D., Anthony F. DePalma, M.D., and Steve Smith, M.D., CMDNJ, New Jersey Medical School—Martland Medical Center-Crippled Children's Hospital, Newark

Here described will be the reasons that have made the medical profession aware of the scoliosis problem and availability of treatment at high standards in Newark. The exhibit shows the different phases of detention, modalities of treatment, and results at our institutions, which compare favorably with other scoliotic centers around the country.

Sialography—A Useful Diagnostic Procedure S-105

Gordon B. Manashil, M.D., and Irving Stein, D.O., Monmouth Medical Center, Long Branch

The purpose of this exhibit is to demonstrate the simple technique of sialography and to illustrate by x-ray various typical lesions encountered. Clinical and therapeutic correlations will be made. A summary of 50 cases and subsequent clinical course will be presented.

Student Depression and Anxiety in High School S-127

Robert A. Weinstein, M.D., Chief of Medicine, Newton Memorial Hospital, Newton

Forty-six (46) teenage students with known anxiety or agitation plus symptoms of depression were treated, in a modified double-blind crossover study, with an antidepressant, alone, or with a combined tranquilizer-antidepressant. Psychological work-up was performed before, during and after the study. Reaction changes in five basic psychological symptoms are presented in detailed statistical tables.

Unusual Tumors of the Lung S-124

Joseph W. Sokolowsky, Jr., M.D., William V. Harrer, M.D., and Barry R. Aikey, M.D., Our Lady of Lourdes Hospital, Camden

Clinical, radiographic, and pathologic presentations of pulmonary blastoma, carcinosarcoma, clear cell carcinoma, and carcinoid tumor.

1974 Annual Meeting

TECHNICAL EXHIBITS

Saturday, May 11

Sunday and Monday, May 12 and 13

12 noon to 5 p.m.

9 a.m. to 5 p.m.

MSNJ is pleased to recognize, through their generous contributions, the following patrons of the educational programs through the scientific sessions:

Geigy Pharmaceuticals
Eli Lilly and Company

Mead Johnson Laboratories
Park Davis and Company

American Association of Medical Assistants
State of New Jersey

Message Center.

Information brochures describing the aims and purposes of AAMA, its educational opportunities, and its certification program will be available for distribution. Messages for doctors in attendance at the meeting will be relayed through this booth.

Ames Company, Division Miles Laboratories, Inc.

#19

Ames Company will have information on the Blood Analyzer, Multistix Reagent Strips, Urin-Trek, and Tetralute/Trilute/Thyrimeter.

Astra Pharmaceutical Products, Inc. #36

Descriptive literature pertaining to the use of Xylocaine® (lidocaine) in the treatment of life-threatening cardiac arrhythmias and instructional charts relative to applicable delivery systems will be available at the Astra booth.

Biometric Systems, Inc. #16

Vitalograph Spirometer is a portable, low cost, single-breath instrument for static and dynamic differential assessments of your patients' chest conditions. Whether used for office physicals, screening, or hospital evaluations, the Vitalograph Spirometer provides comprehensive capabilities by recording directly and enabling rapid reading of volume and flow rate parameters.

E. & W. Blanksteen Agency, Inc. #11 & #12

E. & W. Blanksteen Agency, Inc. are official brokers for The Medical Society of New Jersey for Accident and Health, Major Expense, High Limit Accident, Term Life Insurance, Hospital-Money, the Overhead Expense Plan, EPIC Auto Insurance, HR-10 Keogh Retirement Plan, and Corporate Master Retirement Plan. All of these programs provide exceptional value for the members because of the group purchasing power of the State Society.

Joseph A. Britton Agency #13

This agency provides officially endorsed professional liability insurance.

The Carrier Clinic #10

The Carrier Clinic is a 250 bed short-term, private psychiatric hospital. Treatment and facilities available include individual and group psychotherapy, electroshock treatment, and chemotherapy; also psychiatric social service, psychological evaluation, x-ray and clinical laboratories, electroencephalograph, electrocardiograph, and occupational/recreational services. Recently included in the facility is a self-contained alcoholic recovery unit providing for individual and family counseling and AA meeting on and off the grounds.

Cooperative Buying Ltd. #8

Cooperative Buying Ltd. is a new convenience in professional services. From a revolutionary microfilm billing service to a full line of printed supplies, the concept of the Coop makes it easy to order more of your needs with one phone number. Our microfilm billing service prints your statements, eliminates mailing problems, automatically handles past-due accounts and even supplies you with total security in a second, consolidated, set of records at the same time. You maintain control of your records while CBL simplifies your staff's work.

Datamedic Corporation #25

Datamedic is a local, computerized accounting and billing service. The economic, efficient, and personalized Datamedic service relieves you and your staff of all handwritten paper work associated with accounting, insurance, and record-keeping activities. The Datamedic service maintains records of all patient transactions, prepares and mails patient statements, and provides monthly records of account status. The key to the Datamedic service is a small, attractive terminal located in your office, connected by a telephone line to a computer center in your immediate area.

The Emko Company #1

The Emko Company, specialists in foam delivery systems, presents Emko Vaginal Foam Contraceptive, Emko Pre-fil, Emko Dienestrol Foam for atrophic vaginitis, Sunril Capsules for relief of tension and pain related to menstruation and My Own Feminine Hygiene Towelettes. Professional detailed information on all Emko products is available at the Emko booth.

C. B. Fleet Company, Inc. #9

The exhibit will feature Fleet Enema, Fleet Children's Enema, Fleet Mineral Oil Enema, and Phospho-soda.

Group Health Incorporated #24

Representatives will be available to answer your questions and distribute literature offered by GHI.

Johnson & Johnson #20

The dermatological division of Johnson and Johnson highlights new entries in our broadening line of skin care products. Featured is Retin-A® Brand Tretinoin, the topical vitamin A acid treatment that marked the entry of Johnson & Johnson into the marketing of ethical pharmaceuticals. Also to be displayed are Purpose® Brand Soap and Shampoo.

Larwin Developments, Inc. #43

Representatives of Larwin Developments, Inc. will be available to distribute brochures and describe "The Hideout," a recreational community project.

Lakeside Laboratories, Inc. #28

Lakeside Laboratories, Inc. welcomes you to discuss Triclos®, Norpramin®, Cantil® and other products in the Lakeside line, plus—our new additions: Casafru®, Genepax®, Ipsatol®, Ipsatol/-DM®, Pil-Digis®, Quinora®, Melynor® and Vitamins (Funda-Vite®, Funda-Vite F®, Quanti-Vite®).

David and Charles Levinson #32

On display: Medco Products—The Medco Dublett, dual ultrasound with two palm fitted transducers. Trigger points and symptom areas treated simultaneously. Medco-Sonlator Twin: A diagnostic and therapeutic instrument, combining synchronized and pulsed ultra sound with smooth Medcolator current in continuous, pulse, and surge settings. Medcotherm: Combination of neuromuscular stimulation and moist heat thermostatically controlled and blended with reciprocating and surging settings. Automatic Medcolator: Model K & G Medcolator with straight or interrupted galvanic currents. Martin Short Wave: Automatic tuning, deep penetration. E.K.G.

Marion Laboratories, Inc. #21

Representatives will be available to answer your questions about the various ethical pharmaceuticals offered by Marion Laboratories.

Medical Plastics Laboratory, Inc. #31

Thousands of progressive physicians use our models not only to review their own anatomy but to build better patient relationships through confidence and understanding when explaining diagnosis and surgical procedures.

Medical-Surgical Plan of New Jersey #18

Blue Shield of New Jersey welcomes this opportunity to visit with physicians. We will be particularly happy to discuss our new national reciprocity program and the growth of our 750 Series and Pre-vailing Fee Programs.

Ortho Pharmaceutical Corporation #26

Ortho Pharmaceutical Corporation is proud to present the most complete line of medically accepted products for the control of conception. Also on display will be our well-known products for the treatment of various forms of vaginitis. Your questions will be welcome.

PRO Services, Inc. #41

Representatives will be present to discuss the Keogh Programs, Professional Corporations, and mutual funds available.

Prudential Insurance Company of America Coffee Lounge

Contractor with the Federal Government for Medicare Part B in New Jersey, North Carolina and Georgia and Part A in New Jersey, also with the State of New Jersey for Medicaid.

Radio Dispatch Co. #39

Radio Dispatch Company operates (4) radio common carrier mobile telephone stations in the State of New Jersey. These stations currently serve over 1,000 subscribers in South Jersey. Stations are located in Camden, Trenton, Lakewood, and Atlantic City. Radio Dispatch Company provides radio paging and mobile telephone services from each of these transmitter sites.

A. H. Robins Company #38

You are invited to visit the A. H. Robins exhibit and meet our representatives who will be pleased to discuss products of interest to you.

Roche Laboratories #33, #34, #35

Roche Laboratories will exhibit original research in medicine and chemistry.

Sandoz Pharmaceuticals #17

Sandoz invites you to visit our display which will feature Sanorex®, among other products.

W. B. Saunders Company #30

A full selection of our medical books, journals, periodicals, and audio-visual aids will be on display. Of special interest will be recent publications such as: Tumulty: *The Effective Clinician*; Conn, Rakel & Johnson: *Family Practice*; and Ingelfinger, et al: *Controversy in Internal Medicine II*.

Schering Laboratories #14

Featured products in the Schering exhibit are Garamycin® Injectable, Etrafon® and Drixoral.® In addition to product information there are order forms available for obtaining numerous service aids free of charge.

Searle Laboratories #7

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research. Featured will be information on Ovulen,® Demulen,® Enovid,® Aldactazide,® Flagyl,® Lomotil,® Pro-Banthine,® Metamucil,® and other drugs of interest.

Donald F. Smith and Associates #5

Blue Cross-Blue Shield—custom tailored to provide the additional benefits required to meet the needs of today's physician and his dependents. Specialized administration by Donald F. Smith and Associates of Princeton provides you with answers to your questions regarding coverage and help with your claims problems.

Stuart Pharmaceuticals, Division of ICI America Inc. #15

The Stuart Pharmaceuticals booth consists of graphic panels, product samples, and literature describing some or all of the following products: Mylanta,® Chewable Sorbitrate,® Sorbitrate,® Sublingual and Oral, Kinesed, and Stuartnatal.®

The Upjohn Company #23

Professional representatives of The Upjohn Company are eager to contribute to the success of your meeting. They are here to discuss products of Upjohn research designed to assist you in the practice of your profession. They welcome your inquiries and comments.

Winthrop Laboratories #40

Winthrop Laboratories exhibit will offer information on Talwin® oral, brand of pentazocine (as hydrochloride), Isuprel® hydrochloride (brand of isoproterenol HCL), and Mistometer.®

47th ANNUAL MEETING

Woman's Auxiliary to The Medical Society of New Jersey

Saturday through Tuesday
May 11-14, 1974

Chalfonte-Haddon Hall
Atlantic City

Registration

Lobby Floor, Haddon Hall

May 11—noon to 4:30 p.m.

May 12—9:30 a.m. to 4:30 p.m.

May 13—8:15 a.m. to 4:30 p.m.

Tickets for Tea and Fashion Show available May 11 and 12 at Registration Desk.

Schedule of Events

Saturday, May 11, 1974

- 1 to 4:30 p.m.—Registration for Art Show
(Lobby Floor, H H)
- *5:30 to 7:30 p.m.—Cocktails-Reception
Stair Hall, Lounge Floor, H H
- *6:30 to 8 p.m.—Dinner, Wedgewood Room
Lounge Floor, H H
- *9 p.m.—Dancing, Pennsylvania Room, Lounge
Floor, H H
Harold Ferrin's Haddon Hall Orches-
tra
- *10 p.m.—The Boardwalk Barbershoppers
Chorus
Dancing until midnight

Sunday, May 12, 1974

- 10 a.m.—Art Exhibit
County Press and Publicity Books Ex-
hibit
County Activities Pictorial Display
(Lobby Floor, H H)
- 10 a.m.—Pre-convention Board Meeting Con-
tinental Breakfast (complimentary for
those attending session)
(Navajo Room, 15th Floor, H H)
- *10 a.m. to 5 p.m.—Visit Hawaiian Shops
Stair Hall, Lounge Floor, H H
- 12 noon—Fellowettes' Luncheon
(Blue Room, Office Floor, Chalfonte)
- 2:30 p.m.—Tea and Fashion Show
(Vernon Room, Lounge Floor, H H)
All doctors' wives and guests cor-
dially invited
- *4:30 p.m.—Golden Merit Award Ceremony
(Windsor Room, Lobby Floor, H H)

*6:30 to 8:30 p.m.—Hawaiian/Inaugural Reception
honoring President-elect Rogers
Stair Hall, Lounge Floor, H H

*8 p.m.—Luau—Polynesian Feast
Pennsylvania Room, Lounge Floor,
H H

*8 to 10 p.m.—Hawaiian Orchestra for Dancing
Hawaiian Entertainment: Native Danc-
ers, Singers, Sword Dance
Dancing until midnight

Monday, May 13, 1974

- 8:15 to 9 a.m.—Continental Breakfast—compli-
mentary
Hallway, 13th Floor H H
- 9 a.m. to 12:30 p.m.—General Session
West Room, 13th Floor, H H
- 1:00 p.m.—Annual President's Luncheon
Pennsylvania Room 1, Lounge Floor
H H
All doctors' wives cordially invited
- *6:30 to 8 p.m.—New Orleans Reception
Stair Hall, Lounge Floor, H H
- *8 to 10 p.m.—Annual Dinner-dance honoring
President and Mrs. Boylan
Pennsylvania Room, Lounge Floor,
H H
- *10 p.m.—Benny Goodman and his Sextet
Dancing until midnight
Harold Ferrin and the Big Band

Tuesday, May 14, 1974

- 8 a.m.—Breakfast for County Presidents
Mandarin Room, 13th Floor, H H
- 10:30 a.m.—Post-convention Board Meeting
West Room, 13th Floor, H H

Convention Committee

Chairman—Mrs. Frank Doggett, Jr.
Co-Chairman—Mrs. Lucius Tarchiani

*MSNJ events to which Auxiliary members are cordially invited.

(Members and guests not participating in the "Carnival USA Weekend" all-inclusive rates may purchase tickets directly from the hotel for each evening's dinner and entertainment—\$8 per person, per evening)

Healing nicely, but it still **HURTS**

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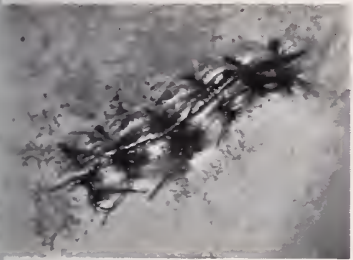
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When parenteral analgesia is no longer required, Empirin Compound with Codeine usually provides the relief needed.

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Empirin Compound with Codeine is effective for visceral as well as soft tissue pain—provides an antitussive bonus in addition to its prompt, predictable analgesia.

prescribing convenience: up to 5 refills in 6 months, at your discretion (unless restricted by state law); by telephone order in many states.

Empirin Compound with Codeine **No. 3**, codeine phosphate* 32.4 mg. (gr. ½); **No. 4**, codeine phosphate* 64.8 mg. (gr. 1). *Warning—may be habit-forming. Each tablet also contains: aspirin gr. 3½, phenacetin gr. 2½, caffeine gr. ½.



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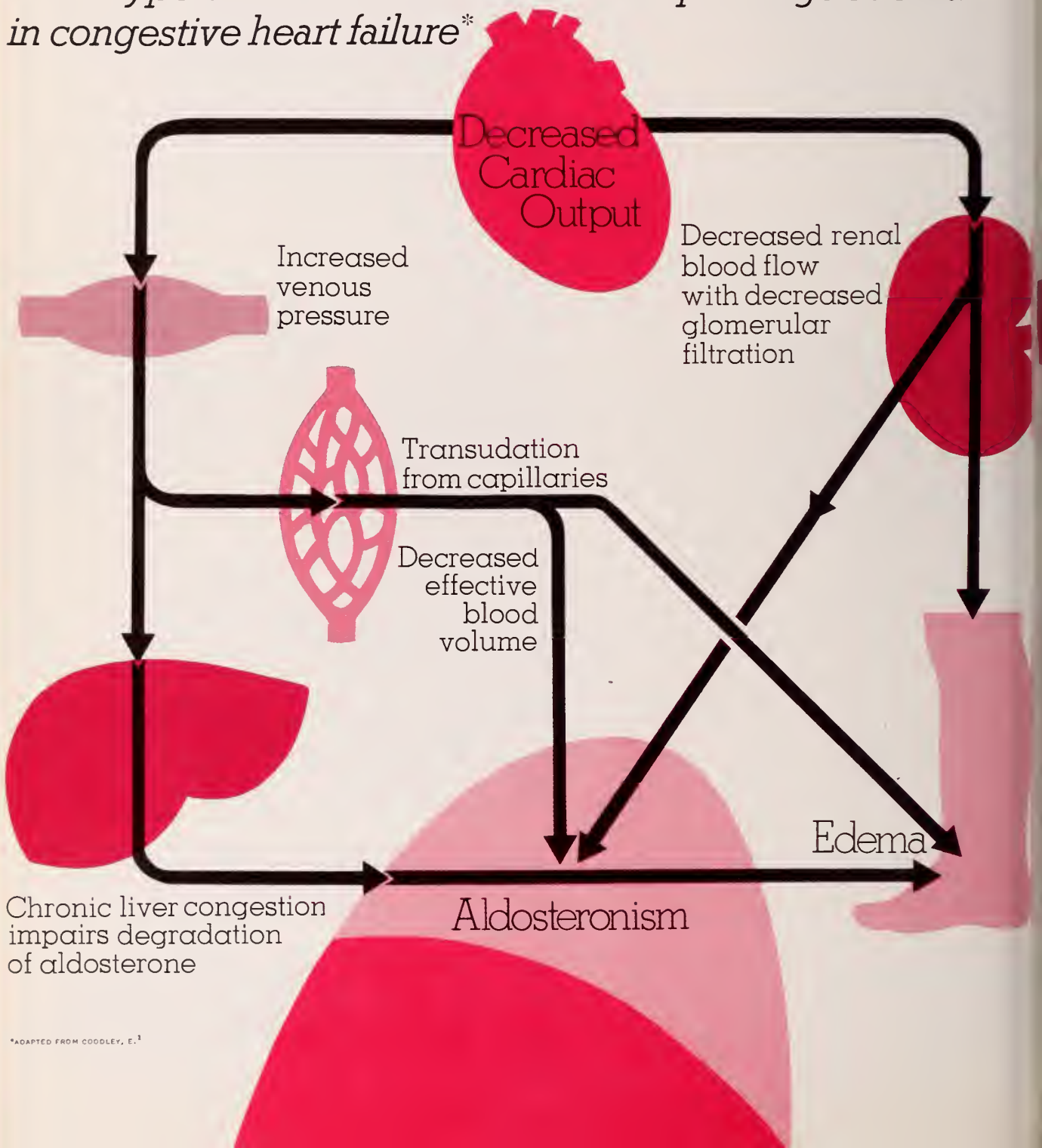
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Nasal fracture

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#3, codeine phosphate* (32.4 mg.) gr. ½
#4, codeine phosphate* (64.8 mg.) gr. 1

In congestive heart failure... **secondary aldosteronism**

*How hyperaldosteronism leads to and prolongs edema in congestive heart failure**



*ADAPTED FROM CODDLEY, E.¹

s a primary factor

To "switch off" the aldosterone factor in congestive heart failure

Aldactone
brand of
spironolactone 25-mg. tablets
*the only specific
aldosterone antagonist...
basic in all diuretic therapy*

Three ways to use Aldactone in congestive heart failure

1. As the only diuretic
 - Often sufficient alone.
 - Produces gradual, sustained diuresis by blocking aldosterone action in the distal renal tubule.
 - Avoids potassium loss.
2. As the basic daily diuretic with an "add-on" alternate-day-diuretic ("A.D.D." schedule)
 - Can be administered daily as basic therapy with the additional agent furosemide or ethacrynic acid) given every second or third day.
 - Aldactone plus "A.D.D." schedule minimizes potassium deficiency and potentiates effect of "add-on" diuretic.²
 - Avoids acute volume depletion and aldosterone rebound.²
3. As a daily diuretic in combination with a daily dose of a thiazide
 - Permits daily additive diuretic effect while maintaining potassium balance.

Indications—Essential hypertension; edema or ascites of congestive heart failure, cirrhosis of the liver and the nephrotic syndrome; idiopathic edema. Same patients with malignant effusions may benefit from Aldactone (spironolactone), particularly when given with a thiazide diuretic.

Contraindications—Acute renal insufficiency, rapidly progressing impairment of renal function, anuria and hyperkalemia.

Warnings—Potassium supplementation may cause hyperkalemia and is not indicated unless a glucocorticoid is also given. Discontinue potassium supplementation if hyperkalemia develops. **Usage of any drug in women of childbearing age requires that the potential benefits of the drug be weighed against its possible hazards to the mother and fetus.**

Precautions—Patients should be checked carefully since electrolyte imbalance may occur. Although usually insignificant, hyperkalemia may be serious when renal impairment exists; deaths have occurred. Hyponatremia, manifested by dryness of the mouth, thirst, lethargy and drowsiness, together with a low serum sodium may be caused or aggravated, especially when Aldactone is combined with other diuretics. Elevation of BUN may occur, especially when pretreatment hyperazotemia exists. Mild acidosis may occur. Reduce the dosage of other antihypertensive drugs, particularly the ganglionic blocking agents, by at least 50 percent when adding Aldactone since it may potentiate their action.

Adverse Reactions—Drowsiness, lethargy, headache, diarrhea and other gastrointestinal symptoms, maculopapular or erythematous cutaneous eruptions, urticaria, mental confusion, drug fever, ataxia, gynecomastia, inability to achieve or maintain erection, mild androgenic effects, including hirsutism, irregular menses and deepening voice. Adverse reactions are infrequent and usually reversible.

Dosage and Administration—For essential hypertension in adults the daily dosage is 50 to 100 mg. in divided doses. Aldactone may be combined with a thiazide diuretic if necessary. Continue treatment for two weeks or longer since an adequate response may not occur sooner. Adjust subsequent dosage according to response of patient.

For edema, ascites or effusions in adults initial daily dosage is 100 mg. in divided doses. Continue medication for at least five days to determine diuretic response; add a thiazide or organic mercurial if adequate diuretic response has not occurred. Aldactone dosage should not be changed when other therapy is added. A daily dosage of Aldactone considerably greater than 75 mg. may be given if necessary.

A glucocorticoid, such as 15 to 20 mg. of prednisone daily, may be desirable for patients with extremely resistant edema which does not respond adequately to Aldactone and a conventional diuretic. Observe the usual precautions applicable to glucocorticoid therapy; supplemental potassium will usually be necessary. Such patients frequently have an associated hyponatremia—restriction of fluid intake to 1 liter per day or administration of mannitol or urea may be necessary (these measures are contraindicated in patients with uremia or severely impaired renal function). Mannitol is contraindicated in patients with congestive heart failure, and urea is contraindicated with a history or signs of hepatic coma unless the patient is receiving antibiotics orally to "sterilize" the gastrointestinal tract.

Glucocorticoids should probably be given first to patients with nephrosis since Aldactone, although useful for diuresis, will not directly affect the basic pathologic process.

For children the daily dosage should provide 1.5 mg. of Aldactone per pound of body weight.

References: 1. Coodley, E.: Consultant 12:106-107, 109, 111, 113, 115 (July) 1972. 2. Tharn, G. W., and Lauler, D. P.: Am. J. Med. 53:673-684 (Nov.) 1972.

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The authors clearly summarize the continuing medical education requirements of MSNJ to retain membership and of the AMA for the Physician's Recognition Award. Remember that June 1, 1976 is the date, so you won't get caught with your accreditation down.

Accreditation Requirements for Continuing Medical Education in New Jersey

James A. Rogers, M.D. and Arthur Bernstein, M.D.*

It was at the annual meeting of The Medical Society of New Jersey in May, 1972, that the House of Delegates adopted the resolution providing for 150 hours of accredited continuing medical education as a requirement for membership in the Society. The 150 hours were to be obtained over a period of three years, and evidence for membership is to be available by June 1, 1976. This was considered ample time for each member to obtain his 150 hours of continuing medical education. Furthermore, an individual not fulfilling this requirement because of some special circumstance, may request a review of his or her case. The Committee on Medical Education will study the request and make its recommendations to the Board of Trustees. The Board of Trustees will then render a decision on each case. It was not the intent of the House of Delegates to exclude any physician from membership in MSNJ who presents a justifiable and reasonable case.

The Committee on Medical Education, after much study and review of similar programs of the AMA and in several states, adopted a program best suited for New Jersey and closely allied to the AMA's Physician's Recognition Award Program which also requires 150 hours of continuing medical education over a three year period.

Last fall, literature regarding the Physician's Recognition Award was mailed to the members of The Medical Society of New Jersey (October, 1973). The literature explained in detail, the purpose of the award and the new criteria as set forth in 1972.

The Committee on Medical Education of MSNJ has arranged with the Department of Continuing Medical Education of the AMA

to offer the AMA's Award Certificate directly from Chicago. The application forms may be requested of the AMA at your convenience. When the form is completed and accompanied with a remittance of \$5, it will be reviewed and the Continuing Medical Education Award will be sent directly to you. Your committee felt that this was the most practical and expedient approach. Furthermore, the AMA acknowledges not only the programs that have been accredited in New Jersey, but accredited programs elsewhere as well. This affords the opportunity to any physician to obtain his continuing education wherever he chooses.

The Committee on Medical Education of MSNJ, the Academy of Medicine, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey have agreed to cooperate and to accept the standards of accreditation established by each group. The Committee on Medical Education of MSNJ will be responsible for accrediting programs in community hospitals. The Academy of Medicine will be responsible for programs initiated by the Academy, as well as the programs initiated by the specialty societies and in-hospital programs utilizing outside teachers that have been reviewed and approved by the Academy's Review Committee on Continuing Medical Education. The continuing medical education program of CMDNJ and its affiliated hospitals was recently surveyed and approved by the Council on

*Dr. Rogers is President-Elect and Chairman of the Committee on Medical Education of MSNJ, as well as Coordinator of Continuing Medical Education at CMDNJ, Rutgers Medical School, Piscataway. Dr. Bernstein is President of the Academy of Medicine of New Jersey and Chairman of the MSNJ Annual Meeting Committee and its Subcommittee on Scientific Program.

Medical Education of the AMA. This was accomplished through the Office of Continuing Medical Education of the College. It is important to note that the Academy of Family Practice also acknowledges the courses accredited by the above group.

Basically, there are six categories of continuing medical education activities which are creditable for the Award.

Category 1—At least 60 credit hours are required in this category for the award. However, the total 150 credit hours may be earned here. They include most of the learning experiences designated in a community hospital which is accredited. An accredited organization is one which has been accredited for its program of continuing medical education by the AMA Council on Medical Education or by a State Medical Association whose accreditation program is approved by the AMA. Furthermore, programs which are cosponsored by an accredited organization which is substantially involved in the continuing medical education activity and accepts responsibility for quality can be considered in this category.

The educational activities referred to must be part of a program that is planned, coordinated, administered, and evaluated in terms of specific educational objectives for a defined group of physicians, or for an individual physician. Included in these activities are the learning experiences provided for in grand rounds, seminars, workshops, teaching rounds, departmental scientific meetings, clinical traineeships, miniresidencies, scientific sessions of medical and medical specialty societies including local, regional, state, national, or international meetings.

Also in this section are such activities as visiting lecture programs, continuing medical education courses, accredited correspondence courses, or self-assessment programs. Accredited audio-visual programs are in this category provided there is a local instructor who conducts the learning experience and supplements the teaching in terms of local educational objectives and needs.

For your information, the *Journal* of the AMA, in the Educational Issue which appears in August of each year, lists many such sponsors and programs. *The Journal* of MSNJ is also providing such information on a statewide basis.

In *Category 2* (continuing medical education activities with non-accredited sponsorship), there is a limit of 45 credit hours that may be earned. They may be claimed for continuing medical education activities sponsored by a medical organization or institution that is *not accredited* for continuing medical education by the AMA or an AMA-approved state medical association program.

In *Category 3* (medical teaching), there is a limit of 45 credit hours that may be claimed for student-contact teaching of medical students, physicians, and for allied health professional personnel.

Category 4 (papers, publications, books, presentations, and exhibits), has a limit of 40 credit hours. Ten credit hours may be claimed for a paper, publication, or for each chapter of a book that is authored. Of course, publication in a recognized medical journal is required. Presentations and/or exhibits must be made before professional and/or allied health professional audiences. Credit should be claimed only on the date the material was first presented or published.

Category 5 (non-supervised individual continuing medical education activities)—There is a total limit of 45 credit hours for this category. The subcategories are 5 in number and have a limit of 22 credit hours for each:

(a) *Self-learning* experiences such as audio-visual devices, slides, and so on. Participation in radio or television or telephone networks without local supervision. Individual reading of medical publications or participation in journal clubs. The non-supervised use of teaching machines or electronic teaching devices.

(b) *Consultations*—All of us have from time

to time experienced a true learning experience from a credible consultation in all fields of medicine which provided for an organized review of current medical knowledge relating to the care in question. It is important to record here the number of hours of participation, the consultant's name and the topic discussed. No more than two hours can be claimed per consultation, and no credit can be claimed for a consultation lasting less than one hour. By the way, the consultant may receive credit in *Category 3* under Medical Teaching.

(c) *Patient Care Review*—There is considerable educational value in participation in programs concerned with the review and evaluation of patient care including peer review, medical audit, utilization review, and in-case conferences.

(d) *Self-Assessment Programs*—credit may be claimed for participation in such activities.

(e) *Specialty Board Preparation*—credit may also be claimed in this activity.

Again, it must be emphasized that a total of 22 credit hours may be earned in each subcategory described, yet only a total of 45 credit hours can be earned over a period of 3 years in *Category 5*.

Category 6 includes other meritorious learning experiences and has a limit of 45 credit hours. In this category one may include meritorious continuing medical education experiences that cannot be easily included in the previous categories mentioned (1-5). It is important, however, to supply satisfactory information about what was done, when it was done, how it was done, and how it was evaluated. If possible, the name of the supervising person should be included in a letter attached to the application form. Continuing medical education activities outside the United States may be claimed here.

Be advised that no credit for the Award can be given for service on councils or committees of medical societies, medical specialty socie-

ties, or other organizations that do not have a continuing medical education value (i.e., service as an officer of a society does not qualify).

You will agree that once the various categories are understood, it should be no problem for any physician engaged in treating patients or engaged in any phase of the delivery of health care to earn 150 credit hours over a three year period. There is ample time and many opportunities to satisfy the requirements before June 1, 1976.

There are a few points to be made regarding the completion of the application for the "Physicians' Recognition Award".

There is a non-refundable application fee of \$5 which partially pays the cost of review and evaluation, the necessary handling, and mailing services. This fee should be made payable to the AMA and *not* to The Medical Society of New Jersey.

Complete your application form (which was sent to you in October, 1973, along with the information booklet) as best you can and submit it. The staff at the AMA will assist applicants where more information is needed (there is no additional fee for this service).

It is important to inform you, that during certain periods of the year, the number of applications received is so great that they cannot be reviewed promptly. Because high standards of review are maintained, several months may pass before applicants can be informed that they qualify for the Award. It is imperative that one not wait until the last minute to send for this Award; ample time and warning have been given.

In conclusion: application forms and information may be obtained from the AMA. Completed forms and \$5 application fee may be mailed to the Department of Continuing Medical Education, AMA, 535 North Dearborn Street, Chicago 60610. Applications for the 1975 Award cannot be accepted after May 31, 1976.

NEW JERSEY DOCTORS' NOTEBOOK

Trustees' Minutes

February 17, 1974

A regular meeting of the Board of Trustees was held on February 17, 1974, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of the significant actions follows:

Committee on Long Range Planning and Development . . . Received the following suggestions for consideration in reactivating the Committee on Long Range Planning and Development, which evolved from President Boylan's communications with component societies:

(a) The number of members of the Committee should not be fixed.

(b) Emphasis should be on MSNJ members who have not been active on the State level; a few members of the Committee should be drawn from those active in MSNJ affairs.

(c) There should be no maximum or minimum tenure except that initial appointments should be for at least two years, with no need to stagger terms. After the initial two-year period, terms should be reconsidered by the Board on an annual basis.

(d) The Executive Director should be assigned to function as staff to the Committee.

(e) Nominations for members on Committee:

William J. D'Elia, M.D., Chairman	Monmouth
Alfred A. Alessi, M.D.	Bergen
H. Oliver Brown, M.D.	Union
Leon C. Edwards, M.D.	Somerset
Edward P. Healey, M.D.	Passaic
Mario E. Jascavich, M.D.	Hudson
Philip J. LoPresti, M.D.	Camden
Kenneth Tuttle, M.D.	Hunterdon
Benjamin Wolfson, M.D.	Gloucester

Medicare-Medicaid Precertification Requirements . . . Concurred in the President's action of writing to DHEW to record MSNJ as being adamantly opposed to precertification requirements for Medicare and Medicaid patients, as published in Vol. 39, No. 6, of the January 9, 1974 issue of the *Federal Register*.

Note: On February 8, 1974, in a telephone conversation with an AMA representative, the Executive Di-

rector was informed that HEW Secretary Weinberger had reconsidered the proposal and decided not to pursue it.

PSRO Area Designations . . . Concurred in the President's action of writing to the Director of the Office of Professional Standards Review—HEW to record MSNJ's opposition to the PSRO designations published in the December 20, 1973 issue of the *Federal Register*.

Chiropractic Coverage Under Medicaid . . . Approved the action of the Executive Director of writing to the Commissioner of Institutions and Agencies requesting that the Proposed Manual for Chiropractic Services (to Medicaid patients) be held in abeyance until an opinion can be obtained from the State Board of Medical Examiners.

Note: The above was in consequence of a notice published in the February 7, 1974, issue of the *New Jersey Register* which indicated that the Department of Institutions and Agencies had adopted a program for chiropractic coverage under Medicaid.

AHA Regional Delegate . . . Noted that John S. Madara, M.D., Second Vice-President of MSNJ, was elected a Regional Delegate to the American Hospital Association's 1974 Annual Meeting (Washington, D.C., February 1974).

Wage and Price Controls . . . Noted that the AMA Board of Trustees had directed the Office of General Counsel to initiate legal action against the Cost of Living Council to remove mandatory wage-price controls on physicians. The suit (which will probably be filed in Federal Court on February 14) will challenge the validity and protest the discriminatory aspects of the controls.

Certificate of Need . . . Noted that despite advice, from the Deputy Attorney General assigned to the Special Committee to the Health Care Administration Board and from the Deputy Attorney General assigned to the Health Care Administration Board, that the regula-

tion adopted by that Board (see footnote*) will not circumvent the exemption granted to the physician in private practice, the Board appears to be not subject to reason and is succumbing to the pressure of special interest groups. The Acting Commissioner of Health has been requested to meet with MSNJ to discuss this issue. At that meeting the Department will be advised that MSNJ considers the proposal illegal and if a rule is, in fact, promulgated, will contest its validity in court.

Note: The Health Care Administration Board action is so irresponsible one must seriously question the motivation behind it. It may well be that certain groups in New Jersey that are dissatisfied with the Certificate of Need Law as reasonably interpreted may be using this tactic with the intent that MSNJ will provide the funds and litigation to overturn the law while they in their fashion will reap the benefits. On the other hand, it may merely be interpreted as a frontal assault on the non-hospital-based practice of medicine.

AMA Conference on Health Care of the Poor

... Approved the attendance (with expenses paid) of William M. Chase, M.D. and Anthony P. DeSpirito, M.D. (from the Council on Public Health) at the AMA National Conference on Health Care of the Poor to be held in Washington, D.C. on March 22 and 23, 1974.

Full-Time Salaried Physicians in Hospitals

... Directed that the following recommendation from the Council on Mental Health be referred to the Executive Committees of MSNJ and NJHA, and the Medical-Hospital Liaison Committee for consideration at the upcoming joint meeting of these committees.

That the Board of Trustees request the Medical-Hospital Liaison Committee to study the relationship between hospital administrators and full-time salaried physicians in hospitals and to establish guidelines for sound interprofessional employment practices for the benefit of the patient.

Moratorium on Purchase of Ambulance Telemetry Equipment ... Approved the following recommendation from the Committee on Emergency Medical Care:

That the Board of Trustees notify the Office of Highway Safety, Department of Transportation, that no (Federal) funds for this equipment (ambulance telemetry equipment) should be allocated unless the equipment is in accordance with frequencies that are approved by the Federal Government.

Note: Manufacturers have not standardized their equipment on the subcarrier frequency for EKG telemetry, which means that no two manufacturers' equipment is compatible. The Inter-Agency Commission on Emergency Medical Care has notified Hospital Administrators, Rescue Squads, and County Boards of Freeholders that the purchase of all such communications' equipment should be suspended until all are regionalized and all are on the same frequencies.

New Jersey Hospital Association ... Approved, with commendation a report submitted by John S. Madara, M.D. (MSNJ liaison representative) on the February 13, 1974 meeting of the Board of Trustees of the New Jersey Hospital Association.

... Referred an item in the American Hospital Association's Amendments to Guiding Principles for Governance of Health Care Institutions to the Executive Committees of MSNJ and NJHS, and the Medical-Hospital Liaison Committee for consideration at their joint meeting on February 27, 1974.

Note: The above is in consequence of MSNJ's exception to one principle which states that "regardless of size of institution, the chief executive officer must be present at meetings of the governing board and should be a member of that board." The Board (MSNJ) noted that where an administrator of a hospital is a member of the board of managers with the right to vote there is an inherent conflict of interest and suggested that the following phraseology in the last line be adopted— and should *not* be a voting member of the board. (Italics indicate Board suggestion.)

Hospital Utilization Program ... Directed that the matter of composition of the Board of Managers of the New Jersey Hospital Association be referred for discussion at the joint meeting of the Executive Committees of MSNJ and NJHA and the Medical-Hospital Liaison Committee.

Note: The Board of Managers of NJHA is presently composed of two hospital administrators, two representatives of the health insurance industry, and six physicians, only one of whom is a practicing physician.

... Voted to register its objection with the NJHA (or any other organization) to the pursuit of PSRO utilization without preplanning and coordination with the New Jersey Foundation for Health Care Evaluation

*Health care facility as defined in NJSA 26:2H-2(a) shall include the facility of any provider of the following: diagnostic radiology; laboratory service; physical medicine; therapeutic radiation; and abortion services. A certificate of need will be required for construction (as defined in NJSA 26:2H-2(c) of such facilities by any existing or potential provider.

which is established and has priority in this area.

Nominations to Board of Directors of American Board of Family Practice . . . Directed that the following names be sent to the AMA as nominees for one five-year term on the Board of Directors of the American Board of Family Practice:

Nicholas E. Marchione, M.D., Vineland
Edward A. Schauer, M.D., Farmingdale
Frank C. Snope, M.D., Flemington

From the names submitted by the AMA to the American Board of Family Practice, one will be chosen as a representative of that Board on the Section Council on Family and General Practice of the AMA.

Summit Radiological Associates . . . Referred to Legal Counsel, for investigation and report at the March meeting of the Board of Trustees, a communication from the Summit Radiological Associates informing the Board that a team from the State Department of Health had arrived at their offices for purposes of inspection, without prior announcement. None of the examination was in any way abusive or inappropriate, but the Summit group believes it is being treated as a health care facility rather than a private practice.

CMDNJ Notes

Past, Present, Future

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

It's not news to members of The Medical Society of New Jersey that the College of Medicine and Dentistry of New Jersey is young, as such institutions go. In our present form, we're not even four years old, which isn't as bad as it sounds because our antecedents go back 20 years. Nevertheless, we are a college in transition—not in instructional areas but in programs, plant construction, and student capacities. Much has been accomplished since CMDNJ was founded in 1970, and a great deal is in the process of being done, but more

remains to be tackled. We need all the help and understanding we can get. We welcome yours.

Our 1973 annual report, entitled “. . . to health,” is predicated on the premise that support flows from understanding. It is a readable and comparatively short document. To give you some quick insight into what we at CMDNJ are, and are doing, we offer this summary.

Two decades ago, the State of New Jersey had no medical or dental teaching facility. Today, the College of Medicine and Dentistry of New Jersey (CMDNJ) is a robust, multi-campus expression of the people's concern for health . . . and for the health sciences and professions. CMDNJ has a full-time enrollment of about 1,000, 89 percent from New Jersey. A few years hence, when campus construction of more than \$200 million will have been completed, the College will have some 1,500 full-time students seeking medical, dental, and advanced biomedical-science degrees, plus additional hundreds in part-time allied health, postgraduate, and professional enrichment programs.

To the passerby, CMDNJ presents many faces—

- The sprawling classroom, laboratory, and office complex of one-story “interim” structures in Newark, and a \$162-million campus under construction nearby.
- A modern, eight-story basic sciences building with laboratory and lecture hall wing, completed in 1970, and a brand, new Institute of Mental Health Sciences, dedicated in 1972, in Piscataway.
- A segment of the Jersey City Medical Center, temporarily housing CMDNJ's dental school.
- Two teaching hospitals: Martland Medical Center, with more than 600 beds, in Newark, and Raritan Valley Hospital, with 128 beds and a new ambulatory-care wing, in Green Brook.
- Thirteen affiliated community hospitals in various parts of the state.

But a college of the health sciences and professions is more than bricks and mortar. It is an intensely human institution, and its measure is in its purposes, its people, and its accomplishments. By such standards, CMDNJ is:

- An ambulance driver, threading his way toward the Martland or Raritan Valley hospitals, his sirens wailing. (He is one of 3,300 non-teaching employees on the payroll. Together with 498 full-time and 1,404 part-time faculty, we constitute an army of health workers who last year ministered directly to the medical and dental needs of more than a quarter of a million patients from New Jersey.)

- A seasoned scientist painstakingly pursuing a research project that could shed a little more light on cancer, or help reduce tooth decay, or signal a breakthrough in the fight against heart disease. (His is one of 142 publicly and privately-funded research programs under way at CMDNJ.)

- A young black woman intently following a lecture on anatomy. (An alumna of the Students for Medicine and Dentistry summer discovery programs for minority-group members, she is one of 60 women and 93 blacks enrolled in doctor-degree sequences throughout CMDNJ.)

The faces of the College typify the three facets of the CMDNJ: *Education, Research, Service*, an endless cycle of discovering, helping, and learning for the health of the state and nation.

None of this existed until 1954, when a group of dedicated men organized the Seton Hall College of Medicine and Dentistry, forerunner of the New Jersey Medical School (NJMS) and New Jersey Dental School (NJDS) components of CMDNJ. (NJDS is in Jersey City and will move to Newark when the new campus there is completed.) For their college, Seton Hall had devised a great seal, which survives as the official seal of CMDNJ. In it, the mythical Roman god of medicine, Aesculapius, was placed above New Jersey's three-plow crest and flanked by the Latin inscription, *Miseris Succurrere Disco*. It translates to *I Learn to Relieve Suffering*.

For the learning necessary to relieve suffering, New Jersey's Legislature created CMDNJ as a free-standing, decentralized institution with a single, policy-making Board of Trustees appointed by the Governor. Deans in charge of the various schools of the College report to the President, who is the coordinating, operating executive.

The first step came in 1965 with the acquisition of the Seton Hall complex, which included the present Graduate School of Biomedical Sciences (GSBS), founded in 1961.

The College then became known as the New Jersey College of Medicine and Dentistry. CMDNJ came into being in 1970, when the Legislature united Rutgers Medical School, Piscataway, and the component schools of the former New Jersey College of Medicine and Dentistry. RMS, founded in 1962 as a two-year basic sciences school, was quickly converted into a full, four-year, M.D.-degree granting institution.

As the College grew and changed, so did its seat of learning. In 1966, a major part of its medical program was shifted from the Jersey City Medical Center to the Veterans Administration Hospital, East Orange, and to Martland Hospital, Newark. Three years later, NJMS was relocated to the "interims" at 100 Bergen Street, Newark, opposite Martland, pending construction of a permanent, forty-seven and a half acre campus across the street.

In coming years, Martland, which serves as "family physician" to most of Newark's indigent population, will be replaced by a new hospital on the campus and will be assigned other functions. A teaching hospital will also rise soon on the Piscataway campus, to augment Raritan Valley Hospital.

A "medical school without walls" is being planned for southern New Jersey, and other special faculties, such as a School of Allied Health Professions, are being organized within CMDNJ.

The College is a state-supported institution; yet nearly half of its 1972-73 budget of some \$71 million came from non-state sources, notably patient services (\$18 million), federal allotments (\$12 million) and student fees and private contributions (\$5 million). Although the private sector contributes only a small part of what makes CMDNJ run, that contribution is of major importance. It is the flexible support that insures the College's freedom to explore, capability to achieve, and courage to lead. It makes possible research programs, acquisition of facilities and equipment, student assistance, faculty enhancement, and pilot studies for which there are no

tax dollars. It is the frosting on the cake, but vital frosting.

To help the private sector help CMDNJ, a new vehicle is being developed, the Foundation of the College of Medicine and Dentistry of New Jersey. Into it, it is hoped, will flow gifts, grants, contracts, endowments, trusts, bequests, and other forms of contributions from individuals, organizations, foundations, and corporations. Out of it will come the help CMDNJ needs to make great strides forward. The estimated cost of presently identified projects in urgent need of private funding over the next five years is \$20 million.

If CMDNJ could be described by one word, that word is "outreach." The College has been deliberately structured to reach out to its students, to the education world, to its statewide and local communities, to practicing professionals, and to the future. Examples abound:

To its medical students, CMDNJ offers a variety of forward-looking study opportunities such as a family-practice residency.

In cooperation with Rutgers University's Livingston College, a unique physician's assistant program is being inaugurated, to lead to the B. S. degree.

An effective Career Ladders program is under way to develop such specialized social and health paraprofessional workers as dental hygienists, x-ray technicians, and family assistants.

From seven cooperating hospitals in the so-called Fifth Channel program, young M.D.'s trained abroad can obtain the clinical experience required at home.

The affiliated-hospital program adds to the hospital's resources while expanding students' clinical training opportunities within the state.

For practicing dentists, there are postgraduate courses; for physicians, a continuing education

program has been organized that is expected to help meet the Medical Society's requirement of 150 hours of study over three-year periods.

For members of minority-population groups, there are programs—such as the Students for Medicine and Dentistry—that seek out qualified students and help them prepare for the rigors of professional study. And, sensitive to community needs, NJMS has organized a volunteer Board of Concerned Citizens that fills an invaluable advisory role.

CMDNJ recognizes that disease prevention begins with conception, and sees the practice of medicine and dentistry as preventive as well as curative. It is concerned with living conditions, family planning, and family life. It deals with mental health, dental health, social adjustment, and societal pressures on young and old within the varied urban, suburban, rural, industrial, commercial, and agricultural environments of the state.

As designed by the State Legislature, CMDNJ is, indeed, a free-standing institution, free of traditional encumbrances, free to move in new directions, free to ally itself with the best resources within the state, and free to serve the people for their health.

A Psychiatric Ombudsman

Raritan Valley Hospital, the primary teaching facility for the CMDNJ-Rutgers Medical School, has established a unique psychiatric post. The assignment fills a liaison void between the psychiatric and other services, principally medicine and surgery, for the benefit of the patient. The psychiatric ombudsman will bridge the gap between emotional and physical illnesses.

The initial appointee to the position, Henry Murphree, M.D., will be assisted by an internist and a psychiatric nurse specialist. Resident physicians will rotate through this service as well.

Maybe the patient's self-diagnosis is right. He could have hay fever. But that bright red nasal mucosa, along with the thick discharge and excoriation around the nares, strongly suggests that the main problem is a cold. Hay fever or another form of allergic rhinitis may or may not be an underlying factor.

If a complete history and examination rule out allergic rhinitis, the long-term outlook will be a lot more favorable than his own "diagnosis" would have indicated.

But right now, whether he's got allergic rhinitis or a cold, he's suffering from the same irritat-

ing symptoms of drip, congestion and stuffiness. Try DIMETAPP EXTENTABS®. They're formulated to relieve these symptoms without much chance of causing drowsiness or overstimulation. Your patients will appreciate the 24-hour relief they can get from just one tablet every 12 hours.

Cold or



Allergy?

Whether it's a cold or an allergy, Dimetapp Extentabs® effectively relieve stuffiness, drip and congestion.

INDICATIONS: Dimetapp Extentabs are indicated for symptomatic relief of allergic manifestations of upper respiratory illnesses, such as the common cold, seasonal allergies, sinusitis, rhinitis, conjunctivitis and otitis. In these cases it quickly reduces inflammatory edema, nasal congestion and excessive upper respiratory secretions, thereby affording relief from nasal stuffiness and postnasal drip.

CONTRAINDICATIONS: Hypersensitivity to antihistamines of the same chemical class. Dimetapp Extentabs are contraindicated during pregnancy and in children under 12 years of age. Because of its drying and thickening effect on the lower respiratory secretions, Dimetapp is not recommended in the treatment of bronchial asthma. Also, Dimetapp Extentabs are contraindicated in concurrent MAO inhibitor therapy.

WARNINGS: *Use in children:* In infants

and children particularly, antihistamines in overdose may produce convulsions and death.

PRECAUTIONS: Administer with care to patients with cardiac or peripheral vascular diseases or hypertension. Until the patient's response has been determined, he should be cautioned against engaging in operations requiring alertness such as driving an automobile, operating machinery, etc. Patients receiving antihistamines should be warned against possible additive effects with CNS depressants

such as alcohol, hypnotics, sedatives, tranquilizers, etc.

ADVERSE REACTIONS: Adverse reactions to Dimetapp Extentabs may include hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia; drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, hypotension/hypertension, headache, faintness, dizziness, tinnitus, incoordination, visual disturbances, mydriasis, CNS-depressant and (less often) stimulant effect, anorexia, nausea, vomiting, diarrhea, constipation, and epigastric distress.

HOW SUPPLIED: Light blue Extentabs in bottles of 100 and 500.

Dimetapp Extentabs®

Dimetane® (brompheniramine maleate), 12 mg.; phenylephrine HCl, 15 mg.; phenylpropanolamine HCl, 15 mg.

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when pain goes on... and on... and on—



For the patient with a terminal illness, PAIN past, present, and future can dominate his thoughts until it becomes almost an obsession. The more he is aware of the pain he is now experiencing, the more difficult it is to erase his memory of yesterday's pain, and to allay his fearful anticipation of tomorrow's pain.

Surely the last thing this patient needs is an analgesic containing caffeine to stimulate the senses and heighten pain awareness. A far more logical choice is Phenaphen with Codeine. The sensible formula provides $\frac{1}{4}$ grain of phenobarbital to take the nervous "edge" off, so the rest of the formula can help control the pain more effectively. Don't you agree, Doctor, that psychic distress is an important factor in most of your terminal and long-term convalescent patients?

the analgesic formula that calms instead of caffeinates

Phenaphen[®] with Codeine

Phenaphen with Codeine No. 2, 3, or 4 contains: Phenobarbital ($\frac{1}{4}$ gr.), 16.2 mg. (warning: may be habit forming); Aspirin ($2\frac{1}{2}$ gr.), 162.0 mg.; Phenacetin (3 gr.), 194.0 mg.; Codeine phosphate, $\frac{1}{4}$ gr (No. 2), $\frac{1}{2}$ gr (No. 3) or 1 gr. (No. 4) (warning: may be habit forming).

Indications: Provides relief in severer grades of pain, on low codeine dosage, with minimal possibility of side effects. Its use frequently makes unnecessary the use of addicting narcotics. **Contraindications:** Hypersensitivity to any of the components. **Precautions:** As with all phenacetin-containing products, excessive or prolonged use should be avoided. **Side effects:** Side effects are uncommon, although nausea, constipation and drowsiness may occur. **Dosage:** Phenaphen No. 2 and No. 3—1 or 2 capsules every 3 to 4 hours as needed; Phenaphen No. 4—1 capsule every 3 to 4 hours as needed. For further details see product literature.

Ⓜ Phenaphen with Codeine is now classified in Schedule III, Controlled Substances Act of 1970. Available on written or oral prescription and may be refilled 5 times within 6 months, unless restricted by state law.

A. H. Robins Company, Richmond, Va. **A·H·ROBINS**

Communicable Diseases in New Jersey

The following communicable diseases were reported to the Communicable Disease Control Program of the New Jersey State Department of Health during February 1974.

	1974 February	1973 February
Aseptic meningitis	4	5
Primary encephalitis	0	1
Hepatitist: Total	113	189
Infectious	50	148
Serum	12	41
Unspecified	51	0
Malaria—Civilian	0	1
Meningococcal meningitis	2	3
Mumps	125	169
German measles	44	158
Measles	823	9
Salmonella	88	57
Shigella	55	34
Tuberculosis	62*	
Syphilis—Primary and		
Secondary	74*	
Gonorrhea	1005*	

*Gonorrhea, syphilis, and tuberculosis are figures for the previous month.

Is Tuberculosis Still A Problem?

The reported incidence of tuberculosis is declining in New Jersey, as well as in the nation. New active cases reported for the past four years were as follows:

Year	Active Cases
1970	1281
1971	1426
1972	1211
1973	1075

New Jersey's rate for newly reported active cases was 16.4 per 100,000 for 1972, but in Newark, it was 66.7, the highest in the country for cities with 250,000 or more residents. Among cities between 100,000 and 250,000 population, Paterson's rate of 58.5 was the highest in the nation. The rates for Trenton, Camden, and Elizabeth ranked third, fifteenth

and twentieth, respectively. In terms of numbers of newly reported cases, Newark and Jersey City rank highest in the State.

The keys to effective tuberculosis control are drug therapy and excellent laboratory services. Only a laboratory which does a substantial amount of tuberculosis work can maintain the necessary level of expertise to guarantee accurate work. The laboratory should routinely perform periodic drug susceptibility studies (antibiograms) on positive cultures, and drug therapy should be modified accordingly. The most reliable sputum specimens are obtained following nebulization.

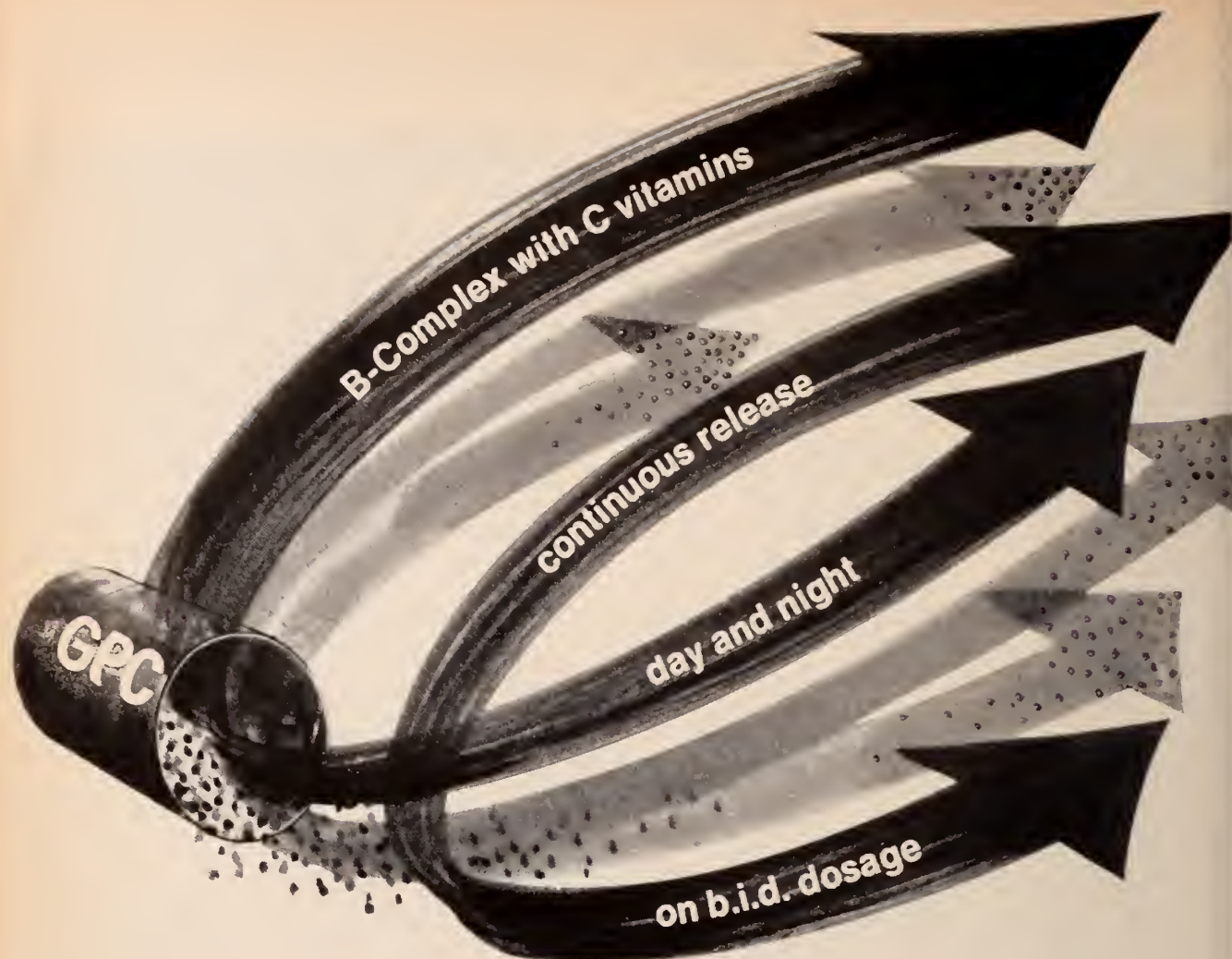
All forms of active tuberculosis should be treated with at least two drugs to which the patient's organisms are sensitive. To cure genitourinary tuberculosis, at least three such drugs should be used.

The usual length of treatment is 24 months. When a patient with pulmonary tuberculosis has had negative monthly sputum cultures for six months, and the chest x-rays have shown stability for at least six months, the disease is labeled inactive. When inactive status has been achieved, and drug therapy of two years has been completed, the patient may be discharged with the advice to return if he or she becomes ill. Prolonged x-ray or other follow-up procedures are not warranted. The rare case of reactivation will come to light when the patient seeks care.

Consultation regarding the use of secondary drugs and the availability of primary drugs for the treatment of tuberculosis can be obtained by phoning Tuberculosis Services in the Department of Health—(609) 292-7100.

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 an improved delivery system
 sustained release by micro-dialysis diffusion

New B-C-BID provides a smooth, continuous, predictable rate of release of water-soluble B-complex and C vitamins. Your patient can now *retain more* of these vitamins because higher tissue levels can be sustained much longer than is possible with ordinary formulations.

Wherever B-complex with C is indicated . . . prescribe the product that delivers most efficiently . . . new B-C-BID.



EACH B-C-BID CAPSULE CONTAINS:

Vitamin B-1 (Thiamine Mononitrate)	15 mg
Vitamin B-2 (Riboflavin)	10 mg
Vitamin B-6 (Pyridoxine)	5 mg
Niacinamide	50 mg
Calcium Pantothenate	10 mg
Vitamin C (Ascorbic Acid)	300 mg
Vitamin B-12 (Cyanocobalamin)	5 mcg

DOSAGE: FOR CONTINUOUS 24 HOUR THERAPY, ONE CAPSULE AFTER BREAKFAST AND ONE AFTER SUPPER.
 SAMPLES ON REQUEST.



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The more physicians consider the hemodynamics of lowering blood pressure...

Most physicians now agree on the importance of reducing blood pressure in the hypertensive patient. But high blood pressure exists, of course, only as part of a complete clinical picture. The hemodynamic profile of well-established essential hypertension is characterized by elevated arterial blood pressure, normal cardiac output, and increased total peripheral resistance.

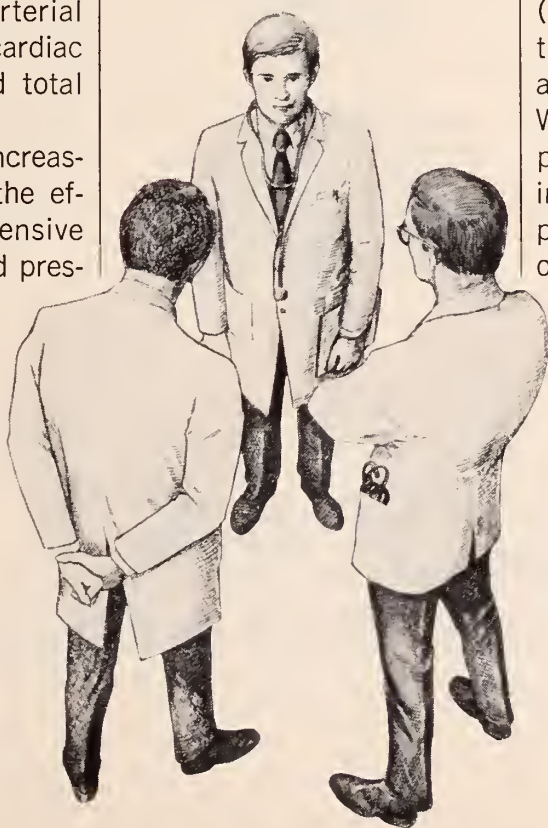
And so, physicians are increasingly concerned with the effects of an antihypertensive agent not only on blood pres-

sure itself but also on the hemodynamic pattern—in short, with the total effect of the drug. *Does it indeed help lower blood pressure effectively? Is peripheral resistance reduced? Are cardiac output and renal functions main-*

tained? And, also, is there likely to be drug-induced postural hypotension serious enough to pose a threat to the patient's cerebrovascular status?

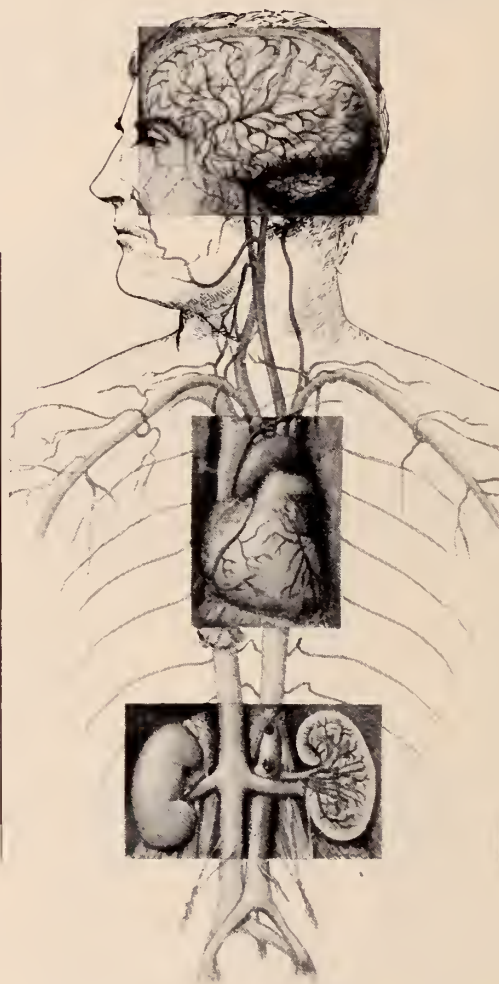
With this emphasis on overall drug performance has come a growing reliance on ALDOMET® (Methyldopa, MSD) in the treatment of sustained moderate hypertension.

With its unique hemodynamic profile, ALDOMET has drawn increasing attention and approval from physicians. First, of course, for its efficacy in



the more physicians rely on this unique antihypertensive

lowering blood pressure. But there are other considerations as well. Cardiac output is usually maintained with no cardiac acceleration; in some patients the heart rate is actually slowed. Peripheral resistance is apparently reduced. ALDOMET does not usually compromise existing renal function; it generally does not reduce renal blood flow, glomerular filtration rate, or filtration fraction. And ALDOMET usually does not cause symptomatic postural or exercise hypotension.



Some patients on continuous methyldopa therapy may develop a positive direct Coombs test. For more details, see the brief summary of prescribing information.

Contraindicated in active hepatic disease and known sensitivity to the drug. Not recommended in pheochromocytoma or pregnancy. It should be used with caution in patients with a history of liver disease or dysfunction. Discontinue the drug if fever, abnormal liver function, jaundice, or acquired hemolytic anemia occurs.

In most cases of sustained moderate hypertension

TABLETS, 250 mg

ALDOMET[®]

(METHYLDOPA | MSD)

smoothly lowers blood pressure

For a brief summary of prescribing information, please see following page.

In most cases of sustained moderate hypertension

TABLETS, 250 mg

ALDOMET® (METHYLDOPA | MSD)

smoothly lowers blood pressure

Contraindications: Active hepatic disease, such as acute hepatitis and active cirrhosis; known sensitivity. Not recommended in pheochromocytoma. Unsuitable in mild or labile hypertension responsive to mild sedation or thiazide therapy. Use cautiously in patients with history of previous liver disease or dysfunction.

Warnings: Acquired hemolytic anemia has occurred rarely in association with therapy with methyldopa. Should clinical symptoms indicate the possibility of anemia, hemoglobin and/or hematocrit determinations should be performed. If anemia is present, appropriate laboratory studies should be done to determine if hemolysis is present. Evidence of hemolytic anemia is an indication for discontinuation of the drug. Discontinuation of methyldopa alone or the initiation of adrenocortical steroids usually results in a prompt remission of the anemia. Rarely, however, fatalities have occurred.

Some patients on continued therapy with methyldopa develop a positive direct Coombs test; incidence reported has averaged between 10% and 20%. It rarely occurs in first six months of therapy, and if not seen within twelve months, is unlikely to develop with continued administration. Positive Coombs test is dose-related; lowest incidence occurs in patients on 1 g methyldopa or less per day. Reversal of the positive Coombs test occurs within weeks to months after discontinuation of methyldopa. Prior knowledge of a positive Coombs reaction aids in evaluation of cross match for transfusions. Patients with positive Coombs tests at time of cross match may exhibit incompatible minor cross match. When this occurs, an indirect Coombs test should be performed. If negative, transfusion with blood otherwise compatible in the major cross match may be carried out. If positive, advisability of transfusion with blood compatible in major cross match should be determined by hematologist or expert in transfusion problems.

Fever has occurred within first three weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first two to three months of therapy. Rare cases of fatal hepatic necrosis have been reported. Liver biopsy in several patients with liver dysfunction has shown microscopic focal necrosis compatible with drug hypersensitivity. Rarely, reversible reduction in leukocyte count with primary effect on granulocytes has been seen; reversible agranulocytosis has been reported. Methyldopa may interfere with measurement of creatinine by alkaline picrate method and of uric acid by photungstate method. When used with other antihypertensive drugs, potentiation of antihypertensive action may occur.

Usage in Pregnancy and Childbearing Age—Not

recommended in pregnancy. In women of child-bearing age, weigh potential benefits against possible fetal hazards.

Precautions: Perform periodic hepatic function tests and white cell and differential blood counts during first six to twelve weeks of therapy or in unexplained fever. Discontinue if fever, abnormalities in liver function tests, or jaundice appears. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, spuriously high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. Discontinue drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Anesthetics requirements may be reduced; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension may occur after dialysis because methyldopa is removed by this procedure.

Dosage should be limited initially to 500 mg daily when following previous antihypertensive agents other than thiazides. Do not exceed recommended daily dose of 3.0 g. Patients with impaired renal function may respond to smaller doses than patients with normal kidney function. Syncope in older patients has been related to increased sensitivity in those with advanced arteriosclerotic vascular disease; this may be avoided by lower doses. Tolerance occasionally seen either early or late, but more likely between second and third month after initiation of therapy; increased dosage or combined therapy with a thiazide frequently restores effective control.

Adverse Reactions: Sedation, usually transient, may be seen during initial therapy or when dosage is increased. Headache, asthenia, or weakness may be noted as early, transient symptoms. Symptoms associated with effective lowering of blood pressure, including dizziness, lightheadedness, and symptoms of cerebrovascular insufficiency, are seen occasionally. Angina pectoris may be aggravated. Symptoms of orthostatic and exercise hypotension may occur; if symptoms occur, reduce dosage. Bradycardia, nasal stuffiness, mild dryness of mouth, and gastrointestinal symptoms including distension, constipation, flatus, and diarrhea occur occasionally; these can be relieved by reducing dosage. Nausea and vomiting have been reported in only a few patients. Sore tongue or "black tongue," pancreatitis, and inflammation of salivary glands may occur.

Weight gain and edema occur infrequently; if edema progresses or signs of pulmonary congestion appear, discontinue drug. Rarely, urine exposed to air may darken due to breakdown of methyldopa or its metabolites. Other rare reactions include breast enlargement, lactation, impotence, decreased libido, skin rash, mild arthralgia, myalgia, paresthesias, parkinsonism, psychic disturbances including nightmares, reversible mild psychoses or depression, reversible thrombocytopenia, drug-related fever and abnormal liver function studies with jaundice and hepatocellular damage (see **Warnings** and **Precautions**), rise in BUN, and a single case of bilateral Bell's palsy.

Supplied: Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

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ADDENDUM

Let's make blood pressure "required reading" for all physicians.

With recent estimates that about 23 million Americans have high blood pressure—and that half of them are not even aware of it—detection of the problem in asymptomatic persons has become an issue of national importance.

Family physicians are being urged to take blood pressure readings as a matter of office routine, regardless of the presenting complaint or the reason for the visit. And because many people do not see a family physician for relatively long periods of time, some experts are suggesting that ophthalmologists, gynecologists, dermatologists, orthopedists, psychiatrists, dentists, school nurses, family planning counselors, and other health-care personnel make blood pressure reading a routine part of every examination or consultation.

Of course, a diagnosis of hypertension cannot be made on the basis of a single reading, but routine blood pressure readings can uncover potential trouble in a certain proportion of patients. And when trouble is suggested, further evaluation can be pursued more effectively.



**Blood pressure—
"required reading"
for all physicians.**

Therapeutic Drug Information Center

The New Jersey Regional Pharmaceutic and Therapeutic Drug Information Center is a project of the New Jersey Regional Medical Program. The Center serves as a source of intelligence on specific problems, articles, and reports concerning pharmaceutic and therapeutic information. A specialized library maintained by the Center contains complete information about U.S., foreign, investigational, and proprietary drugs, including their identification, availability, interactions, compatibility, side effects, dosage, adverse reactions, and so on.

The Center is staffed by trained pharmacists. Jack M. Rosenberg, Pharm. D., Associate Professor of Pharmacy and Director of Drug Information, Brooklyn College of Pharmacy, is Project Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College is pharmacologist consultant. The service is free, available Monday through Friday from 9 a.m. to 5 p.m.—telephone (201) 445-4900, extension 132. Below are three questions and answers handled by the Center recently.

1. A patient who is receiving a potassium-depleting diuretic is unable to tolerate oral potassium supplements. Which foods are rich sources of potassium?

Two approaches to preventing or overcoming the potassium depletion associated with the use of certain diuretic drugs are to add potassium to the diet, through food sources or potassium supplements, or to use a potassium-sparing drug along with the potassium-depleting drug. Two commonly used drugs which spare potassium are spironolactone (Aldactone®) and triamterene (Dyrenium®). However, the use of these potassium-sparing diuretic drugs carries a possible risk of hyperkalemia and, generally, potassium supplements should not be given when these agents are used.¹

Medical Letter² indicates that adding 40 mEq of potassium to the regular diet will usually prevent hypokalemia or correct mild potassium depletion in patients treated with potassium-depleting diuretics or other drugs that increase potassium loss. The following chart lists the potassium content of commonly used beverages and foods.^{3,4,5}

*The tetracyclines available in the United States are Chlortetracycline (Aureomycin®), demeclocycline (Declomycin®), doxycycline (Vibramycin®), methacycline (Rondomycin®), minocycline (Minocin®), oxytetracycline (Terramycin®), rolitetracycline (Syntetrin®, Velacycline®), and tetracycline.

Potassium Content of Commonly Used Beverages and Foods

Food or Beverage (8 oz.)	Approximate mEq of Potassium
Apple juice, canned	6.4
Apricot juice	9.5
Bouillon cube, meat extract, 1 cube	2.8
Bouillon cube, vegetable, 1 cube	3.3
Colfee, Instant (2 Gm)	6.1
Grape juice, canned, sweetened	5.5
Grapefruit juice, canned	10.4
Milk, nonfat	7.1
Milk, whole	9.1
Orange juice, fresh	12.7
Pineapple juice, canned	9.7
Prune juice, canned	11.4
Tea	1.7
Tomato juice, canned	11.0
Apricots, raw 2-3	7.1
Banana, 1 fresh	16.1
Cantaloupe, half	5.9
Cauliflower, raw, 10 oz.	12.8
Dates, dried, 3-4	5.8
Figs, dried small	20.0
Fruit cocktail, canned, sweet	10.5
Peaches, dried, 1/2 cup uncooked	28.2
Pears, raw, 1	4.6
Prunes, dried, large, raw	7.7
Raisins, dried, 2 tbs.	3.7
Strawberries, raw, 8 oz.	6.8
Watermelon, half slice	9.7
Wheat germ, 100 gm	18.9
Beef round, 3 oz.	9.0
Turkey, 4 oz.	9.0

References

¹Goodman and Gilman (eds): *The Pharmacological Basis of Therapeutics* ed 4. New York, MacMillan, 1970. pp 861-864

²Anonymous: Enteric-coated potassium. *Med Letter* 16:2-3, 1974

³*Ibid*: pp. 2-3

⁴Pearson RE and Fish KH: Potassium content—diet supplements, salt substitutes. *Hosp Pharm* 6:6-9, 1971

⁵Knobene JE: *Rx Drug Review*. Rockville, Maryland; (2nd Edition) pp. 41, 1971

2. Which, if any, of the various tetracyclines* can be utilized in patients who are exposed to high amounts of natural sunlight?

Phototoxic skin reactions of those parts exposed to bright sunlight have been observed in subjects being treated with various tetracyclines. The phototoxicity is most commonly manifested as paresthesias or an exaggerated sunburn response, and less commonly as onycholysis.¹ These reactions, which may persist for considerable periods of time, may be quite severe and may result in abnormal pigmentation of the skin.²

Demeclocycline has been reported to cause photosensitivity more frequently than other tetracyclines.^{3,4} However, the effect has also been described for chlortetracycline, tetracycline, oxytetracycline, methacycline, and doxycycline.⁵

A study by Forst, *et al.*⁶ compared doxycycline, minocycline, and a placebo under conditions of experimental exposure to natural sunlight. Mild transient

abnormal sunburn reactions, paresthesias, or both, developed in 11 of 15 subjects who received doxycycline, and in none of the subjects who received minocycline or placebo capsules. Zuehlke⁷ also described a case of doxycycline photosensitivity being manifested as a papular eruption.

From our search, it appears that doxycycline and methacycline exhibit little photosensitivity. To date, no reports were found of phototoxicity associated with minocycline.

References

¹Zuehlke RL: Papular doxycycline photosensitivity. *Arch Dermatol* 108:837-838, 1973

²Anonymous: American hospital formulary service. American Society of Hospital Pharmacists. Washington, D.C., 1974

³Hicks JH: Demethylchlortetracycline: A double blind study on the treatment of acne with attention to side effects noted. *Southern Med J* 55:357-360, 1962

⁴Harber LC *et al*: Studies on photosensitivity due to demethylchlortetracycline. *J Invest Dermatol* 37:189-193, 1961

⁵Meyler L and Herxheimer A, Eds: Side effects of drugs vol. 7. *Excerpta Medica* (Amsterdam), 1971

⁶Forst P, *et al*: Phototoxic potential of minocycline and doxycycline. *Arch Dermatol* 105:681, 1972

⁷Zuehlke: *op cit*

3. Once a patient exhibits a rash to ampicillin, are other penicillins contraindicated?

It is now generally accepted that the major allergic component in penicillin allergy is the penicilloyl group. It is common to all penicillins including ampicillin. Thus, in patients allergic to penicillin, a group allergy is highly probable and treatment should not be substituted with a different penicillin due to the high risk of allergic reactions.¹

However, two main groups of rashes occur in the course of ampicillin therapy.² The first type of rash is a hypersensitivity rash which is urticarial and similar to the rash associated with a true penicillin hypersensitivity. This may appear soon after the onset of treatment or may be delayed for as long as three weeks. The incidence of this type of urticarial rash from ampicillin is no more common than with other penicillins. Secondly, and much more common, an erythematous, dull red, macular or maculopapular rash, less irritant than urticaria develops. It starts most commonly on the extensor aspects of the limbs with accentuation over elbows and knees and spreads symmetrically to most parts of the body. The rash may appear as early as the first day of treatment but usually between 5 and 14 days, thus it is often first noted after ampicillin therapy has been stopped. Mild rashes clear within a few days, but more severe rashes, which are often purpuric, may last a week or more. Occasionally slight fever is present. Subsequent courses of the antibiotic may not necessarily produce the reaction.

Knudsen and co-workers³ and Hendriksen⁴ showed that impurities produced in the manufacturing process of ampicillin play a part in the development of an ampicillin rash. It has also been noted that patients with viral infections appear to develop a typical

ampicillin rash more readily than those being treated for a bacterial infection. Pullen, *et al*⁵ reported a significantly lower incidence of rashes in patients who received benzylpenicillin, an incidence similar to untreated patients, than patients who received ampicillin.

In conclusion, it appears that an erythematous reaction to ampicillin does not necessarily mean that a patient is allergic to other penicillins.

References

¹Pevny I: Treatment with other penicillins in proved penicillin allergy. *Dtsch Med J Wochenschr* 98:1597-1600, 1973

²Knudsen ET: Ampicillin and urticaria. *Br Med J* 1:846-847, 1969

³Knudsen ET, *et al*: Reduction of incidence of ampicillin rash by purification of ampicillin. *Br Med J* 1:469-470, 1970

⁴Hendriksen C: Skin reactions to ampicillin. *Br Med J* 1:505-506, 1972

⁵Pullen H *et al*: Hypersensitivity reactions to antibacterial drugs in infectious mononucleosis. *Lancet* 2:1176-1178, 1967

PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

CARDIOLOGY—Maraboyina Sudhakar, M.D., 240 East Westfield Avenue, Apt. B-5, Roselle Park 07204. Osmania (India) 1968. Board certified. Group, partnership, hospital, solo. Available July 1974.

FAMILY PRACTICE—David F. Pierson, M.D., 4102 Dover Lane, Temple, Texas 76501. National University (Galway, Ireland) 1972. Partnership—no obstetrics. Available September 1974.

A. R. Tessler, M.D., 13342 Malena Drive, Santa Ana, California 92705. Hahnemann 1969. Solo or association. Available. Will purchase practice in south Jersey.

INTERNAL MEDICINE—M. I. Zafar, M.D., Apt. 11-D, 85 Manor Drive, Newark 07106. King Edward (India) 1968. Subspecialty, cardiology. Group, solo, or partnership. Available July 1974.

- R. N. Saxena, M.D., 1915 Beacon Street, Brookline, Massachusetts 02146. Varanasi (India) Medical College 1969. Subspecialty, gastroenterology. Group or partnership. Available July 1974.
- M. E. Ali, M.D., Lung Research Center. Yale University, 333 Cedar Street, New Haven 06510. Karachi University (Pakistan) 1964. Subspecialty, pulmonary disease. Board eligible. Group or partnership. Available July 1974.
- Jose A. Eisma, M.D., 5947 Castle Run, San Antonio, Texas 78218. Santo Tomas 1963. Board eligible. Group, partnership, institution. Available July 1974.
- Amir Ahmad, M.D., 78-40 164th Street, Flushing, New York 11366. King Edward (Pakistan) 1968. Group, partnership, solo. Board eligible. Available July 1974.
- M. El-Kharboutly, M.D., 154 Belmont Avenue, Apt. 402, Jersey City 07304. Cairo University 1959. Board eligible. Institutional or solo. Available July 1974.
- Syed A. Q. Jafri, M.D., 390 First Avenue, Apt. 11-H, New York 10010. Liaquat Medical College (Pakistan) 1965. Board certified. Group, partnership, solo. Available July 1974.
- Puliadi Jothikumar, M.D., 660 East 98th Street, Brooklyn 11236 (Apt. 7G). Madurai Medical College (India) Board eligible. Group or hospital. Available July 1974.
- Yi-Nan Chou, M.D., 1900 Hopkins Road, Apt. 3, Richmond, Virginia 23224. Taipei Medical College (Taiwan) 1967. Board eligible. Subspecialty, cardiology. Group, partnership, solo, or hospital. Available July 1974.
- Kedar N. Kapoor, M.D., 1824 Country Club Drive, Cherry Hill, New Jersey 08003. K. G. Medical College, Lucknow (India) 1960. Subspecialty, gastroenterology. Board eligible. Group or partnership. Available July 1974.
- M. Rostamian, M.D., 15 South 9th Street, Newark 07107. Isfahan (Iran) 1967. Board eligible. Partnership, solo. Available January 1975.
- Ernest T. Bajpai, M.D., 111 East Mont Lane, Sickler-ville, New Jersey 08081. Prince of Wales (India) 1955. Board certified. Group, partnership, or association (preferably incorporated) Available July 1974.
- OPHTHALMOLOGY**—Enrique Ellenbogen, M.D., 420 Sand Creek Road, Apt. 510, Albany, New York 12205. Cavetano Heredia Medical (Peru) 1968. Board eligible. Association, partnership, solo. Available September 1974.
- PATHOLOGY**—Americo B. Anton, M.D., 1910 Columbia Pike, Apt. 7, Arlington, Virginia 22204. Trujillo (Peru) 1970. Board eligible. Group, partnership, solo, institution. Available July 1974.
- Pastor C. Gomez, M.D., Route 17-A, Greenwood Lake, New York 10925. Santo Tomas 1946. Group. Available.
- PEDIATRICS**—J. N. Pahuja, M.D., 200 Carman Ave., Apt. 8-H, East Meadow, New York 11554. Amritsar (India) 1962. Board eligible. Group, partnership, institution, clinic. Available July 1974.
- Gerardo J. Mayer, M.D., 8201 Henry Avenue, Apt. L-16, Philadelphia 19128. Buenos Aires 1967. Board certified. Group, hospital, comprehensive care center. Available September 1974.
- Boris G. Kousseff, M.D., 1435 Lexington Avenue, 1-D, New York 10028. Sofia (Bulgaria) 1959. Board eligible. Subspecialty, genetics. Hospital or group. Available September 1974, or earlier.
- SURGERY**—S. H. Green, M.D. 6938 Post Street, Edwards, California 93523. NYU 1966. Board certified. Solo, partnership, association. Available August 1974.
- Tae Soo Kim, M.D., 660 East 98th Street, Apt. 5-J, Brooklyn, New York 11236. Catholic Medical (Korea) 1966. Group, partnership, solo, emergency room. Available July 1974.
- Harvey L. Green, M.D., 15 Treaty Road, Drexel Hill, Pennsylvania 19026. Temple 1966. Subspecialty, vascular surgery. Board eligible. Group, partnership, clinic. Available July 1974.
- K. G. Khalil, M.D., 2406 Bristol Road, Columbus, Ohio 43221. Cairo University 1961. Subspecialty, thoracic surgery. Board eligible. Group, partnership. Available July 1974.
- Peter J. Periconi, M.D., 200 Carman Ave., Apt. 10-B, East Meadow, New York 11554. Hahnemann 1969. Subspecialty, vascular surgery. Board eligible. Group or associate. Available July 1974.
- Kung-Ho Liu, M.D., 222 East 19th Street, New York 10003. Taiwan 1964. Board eligible. Group or partnership. Available July 1974.
- Aftab A. Khan, M.D., 800 South Avenue, Apt. B-2, Secane, Pennsylvania 19018. Dow Medical (Pakistan) 1968. Board eligible. Group or partnership. Available July 1974.
- Madhav V. Phadke, M.D., 666 Elm Street, Buffalo, New York 14203. M.G.M. Medical (India) 1967. Subspecialty, oncologic surgery. Board eligible. Group or partnership. Available July 1974.
- Il Bong Kim, M.D., 950-49th Street, Brooklyn, New York 11219. Catholic Medical (Korea) 1967. Board eligible. Emergency room or institutional physician. Available July 1974.
- Donald C. Martin, Jr., M.D., 340 South 19th Street, Philadelphia, Pennsylvania 19103. University of Pennsylvania 1962. Board eligible. Solo. Available September 1974.
- Noel M. Doromal, M.D., 289 Slocum Way, Fort Lee 07024. Santo Tomas 1967. Board eligible. Group or solo. Available August 1974.
- Riaz Hussain, M.D., 660 East 98th Street, Brooklyn 11236. King Edward College (Pakistan) 1958. Board eligible. Available July 1974.
- Boonlua Lucktong, M.D., 26 Elkhorn Street, Welch, West Virginia 24801. Siriraj Medical School, Bangkok (Thailand) 1964. Board eligible. Group, partnership, hospital. Available July 1974.
- UROLOGY**—Hau Hsien Chang, M.D., 316 Marengo, Apt. I-C, Forest Park, Illinois 60130. Taipei Medical College 1966. Group, partnership, or solo. Available August 1974.

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Precautions: As with other thyroid preparations, an overdosage of SYNTHROID (sodium levothyroxine) may cause diarrhea or cramps, nervousness, tremors, tachycardia, vomiting and continued weight loss. These effects may begin after four or five days or may not become apparent for one to three weeks. Patients receiving the drug should be observed closely for signs of thyrotoxicosis. If indications of overdosage appear, discontinue medication for 2-6 days, then resume at a lower dosage level. In patients with diabetes mellitus, careful observations should be made for changes in insulin or other antidiabetic drug dosage requirements. If hypothyroidism is accompanied by adrenal insufficiency, such as Addison's Disease (chronic adrenocortical insufficiency), Simmonds's Disease (panhypopituitarism) or Cushing's syndrome (hyperadrenalism), these dysfunctions must be corrected prior to and during SYNTHROID (sodium levothyroxine) administration. The drug

should be administered with caution to patients with cardiovascular disease; development of chest pains or other aggravations of cardiovascular disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardial infarction. **Side effects:** The effects of SYNTHROID (sodium levothyroxine) therapy are not usually manifested. Side effects, when they do occur, are secondary to increased rates of metabolism; sweating, heart palpitations, nervousness, or without pain, leg cramps, and weight loss. Diarrhea, vomiting, and nervousness have also been observed. Myxedematous patients with heart disease have died from abrupt increases in dosage of thyroid drugs. Careful observation of the patient during the beginning of any thyroid therapy will alert the physician to any untoward effects.

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Dosage and Administration: The activity of a 1 mg. SYNTHROID (sodium levothyroxine) tablet is equivalent to approximately one grain of thyroid, U.S.P. Administer SYNTHROID tablets on a single daily dose. In hypothyroidism without myxedema, the usual initial adult dose is 0.1 mg. daily, and may be increased by 0.1 mg. every 30 days until proper metabolic balance is attained. Clinical evaluation should be made monthly and PBI measurements about every 90 days. Final maintenance dosage will usually range from 0.2-0.4 mg. daily. In adult myxedema, the starting dose should be 0.025 mg. daily. The

dose may be increased to 0.05 mg. after two weeks and to 0.1 mg. at the end of a second two weeks. The daily dose may be further increased at two-month intervals by 0.1 mg. until the optimum maintenance dose is reached (0.1-1.0 mg. daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded, in bottles of 100, 500, and 1000. Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, U.S.P., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent. SYNTHROID (sodium levothyroxine) for injection may be administered intravenously utilizing 200-400 mcg. of a solution containing 100 mcg. per ml. If significant improvement is not shown the following day, a repeat injection of 100-200 mcg. may be given.

1. Braverman, L. E., Ingbar, S. H., and Sterling, K.: Conversion of Thyroxine (T₄) to Triiodothyronine (T₃) in Athyreotic Human Subjects, *J. Clin. Invest.* 49:855-64, 1970.

2. Surks, M. I., Schadow, A. R., and Oppenheimer, J. H.: A New Radioimmunoassay for Plasma L-Triiodothyronine: Measurements in Thyroid Disease and in Patients Maintained on Hormonal Replacement. *J. Clin. Invest.* 51:3104-13, 1972.



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*AVAILABLE ON REQUEST: Ronald I. Goldberg, M.D. & Franklin I. Shuman, M.D.
Double-blind study on the treatment of mentally confused patients. Reprinted
from the Journal of the American Geriatrics Society, Vol. XII, No. 6, June 1964.

CLINICAL NOTES

Pseudo Venous Hum

Paul Goldfinger, M.D./Dover

The differential diagnosis of continuous bruits in the neck is quite limited. The most common condition producing this physical finding is the venous hum.

I have recently observed a high incidence of continuous bruits over the necks of patients with acute myocardial infarction. Unlike the venous hum, these bruits did not vary with neck compression, Valsalva, head turning, and

so on. They could, however, be abolished by removing the nasal oxygen prongs. Patients receiving oxygen by mask did not demonstrate this finding. In one instance, the absence of the expected bruit resulted in the discovery of a leak in the oxygen line.

The pseudo venous hum is an auscultory consequence of administering oxygen by nasal prongs. It should not be confused with continuous bruits resulting from intravascular events.

Chondromalacia Patella

Leo Kelly, Jr., M.D./South Orange

Patellar chondromalacia ("sick cartilage") is a roughening of the smooth posterior surface of the knee cap. This area appears irregular, soft and yellow in some areas, cracked and even shaggy, depending on the extent of the condition. Although post-traumatic cases, such as knee-dashboard injury, are treated the same, the etiology of spontaneous patellar chondromalacia is unknown.

The condition occurs in both sexes at all ages, but it is most prevalent among younger males. Speculation as to the role of physical activity or sexual differences has been inconclusive. The history of such patients includes difficulty ascending and descending stairs, and stiffness, soreness, and achiness in the knees after a period of bedrest or prolonged sitting. Walking on level ground, or running in a straight line do not aggravate the condition, which actually may seem better after the first few steps. The aching does get worse, however, from walking on uneven ground.

The diagnosis can be made by the history, but a thorough physical examination, x-rays, and

sometimes special studies are needed. The knee may appear puffy and tender, and a small effusion may be noted. Ligamentous and meniscal injury must be ruled out and then one looks for subpatellar crepitus. This is elicited by pressing the patella onto the femur with the leg straight. Moving the patella in a longitudinal and transverse direction will cause pain and a "grating" will be felt.

X-rays are usually negative, but the lateral view sometimes shows sclerosis of the posterior surface of the patella and occasionally shallow "pitting" is present. Arthrograms are of no value except to rule out underlying meniscal tears.

Arthroscopy, through a small incision, is an operating room procedure which is valuable. This diagnostic technique will be used more frequently as equipment and methods improve.

Several approaches to treatment may be used. In a young male athlete, application of a cylinder cast for three to four weeks, while isometric quadriceps exercises are performed, will give the synovitis a chance to resolve, while the quadriceps muscle is strengthened.

An occasional patient with patellar chondromalacia requires surgical realignment of the extensor mechanism of the knee. This may entail moving the tibial tubercle medially and downward for a condition such as recurrent subluxation of the patella.

Finally, a patellectomy is sometimes indicated in an active working patient. Postoperative disability is minimal, symptoms disappear. With proper rehabilitation of the extensor mechanism, the knee will be strong enough for almost all normal athletic endeavors.

ANNOUNCEMENTS

Graduate Courses in Medicine

The following schedule, in the series, "Advances in Medicine," has been announced by the Bergen Pines County Hospital, Paramus. Sessions are held in the hospital auditorium from 9:30 to 11 a.m. on the Wednesdays indicated and collation is offered at 9 o'clock. For further information write to the Office of Medical Education, Bergen Pines County Hospital, Paramus 07652.

April 10	Hypertension
April 17	Bacterial Enteritis
April 24	Acromegaly
May 1	Diabetic Neuropathy
May 8	Hemorrhagic Disorders
May 15	Pancreatitis
May 22	Cellular Immunity
May 29	Ulcerative Colitis and Crohn's Disease
June 5	Clinical Pathology Conference
June 12	Annual House Staff Symposium
June 19	Graduation

Psychiatric Training Programs

At 9:30 a.m., on the Wednesdays indicated, the Saint Barnabas Medical Center in Livingston will present the following in a series of psychiatric training courses. This is part of a two-year program for psychiatrists, other physicians, psychologists, social workers, and professionals in allied fields. Appropriate credit will be allowed, as determined by MSNJ. Inquiries should be addressed to the Department of Psychiatry, Attention of Miss

Hoffman, Saint Barnabas Medical Center, Livingston 07039.

April 10	Schizophrenia—etiology, newer concepts
April 24	Affective Psychoses
May 1	Involutional Psychotic Reaction
May 15	Depression
May 29	Paranoia
June 12	Psychoneuroses
June 26	Psychoneuroses

Graduate Lectures in Surgery

The following programs have been announced for the 1973-1974 "Distinguished Lecture Series" offered by the Department of Surgery of the New Jersey Medical School, CMDNJ:

April 15	Surgery in Ulcerative Colitis Ward O. Griffen, Jr., M.D. Department of Surgery University of Kentucky College of Medicine
May 13	Program on Oncology Walter Lawrence, Jr., M.D. Division of Surgical Oncology Medical College of Virginia
September 9	Surgery of Complications of Coronary Artery Disease W. Gerald Austen, M.D. Chief, General Surgical Services Harvard Medical School— Massachusetts General Hospital

Lectures are held at 4 p.m. in the amphitheater, 2nd floor, Martland Hospital, Newark. There is no charge. Guarded parking is

available in parking lot M, 12th and Bergen Streets. For further information, please write to Eric J. Lazaro, M.D., Professor of Surgery, Martland Hospital Unit, CMDNJ, 65 Bergen Street, Newark 07107.

Psychiatric Graduate Programs

Fair Oaks Hospital in Summit, in cooperation with the Academy of Medicine of New Jersey, has arranged the following programs in the series, "Current Topics in Psychiatry:"

April 17	A Day Care Center V. Terrell Davis, M.D.
May 1	Treatment for Depressions Marshall Swartzburg, M.D.
May 15	Adolescent Psychiatry, Part I Martin Weinapple, M.D.
May 29	Psychiatric Care of Children Evelyn P. Ivey, M.D.
June 12	Hypnosis for Compulsive Eating, Smoking Roland D. Roecker, M.D.
June 26	Adolescent Psychiatry, Part II Martin Weinapple, M.D.

Sessions are held from 3 to 4:30 p.m. (Wednesdays) at the hospital, 19 Prospect Street, Summit. Further information may be obtained from Granville L. Jones, M.D., Director of Research and Education.

Emergency Medical Care Colloquium

On April 24, at the Holiday Inn in North Brunswick, the Inter-Agency Commission on Emergency Medical Care will hold a conference on the "Categorization of Hospital Emergency Department Capabilities" as a preparatory to the development of a statewide emergency medical care plan for New Jersey. This program is arranged in accordance with the requirements of the National Research Council of the National Academy of Science. Results of surveys of emergency departments will be discussed as they pertain to the requirements of NRC-NAS for specialized centers. Registration is necessary and is available from 8 a.m. The conference convenes at 9 o'clock, and luncheon is served at noon. For additional information, please communicate with Jack R. Karel, M.D., 115 North Avenue, Hillside 07205.

Symposia on Nephrology

The first annual scientific meeting of the Nephrology Society of New Jersey will be held on Thursday, May 23, 1974, from 7 to 9 p.m., at the Auditorium of Newark Beth Israel Medical Center, 201 Lyons Avenue, Newark. All physicians are welcome; there is no registration fee. For information, please write or call the Program Chairman, Howard J. Frankel, M.D., 707 South Orange Avenue, South Orange 07079.

Camp for Diabetic Children

New Jersey's only camp for children with diabetes is about to start its 17th season. Sponsored by the New Jersey Diabetes Association, the camp provides diabetic children with a valuable experience that would be difficult to obtain in any other way. In addition to enjoying camping, social adjustment, self-reliance, and basic health habits that are required for their well being are emphasized.

This 70-acre facility, known as Camp Nejeda, is located in Stillwater, New Jersey. A new pool used for swimming and diving was added in 1973. The infirmary is staffed by a physician and two registered nurses and the entire camp staff is oriented to the care of the child with diabetes.

Children from 5 to 15 years old are accepted, irrespective of race, creed, or ability to pay. The season starts on June 30, 1974. Further details may be obtained by communicating with Mrs. William Levison, Executive Director, Camp Nejeda, 153 Roseville Avenue, Newark, New Jersey 07107—(201) 483-1122.

Scientific Sections

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WRITE FOR LITERATURE AND SAMPLES

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MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s).

April

- 10 **Angiography**
- 17 **Acupuncture**
- 24 **Complications in Myocardial Infarction; Re-entry**
10:30-11:30 a.m.—Clara Maass Memorial Hospital, Belleville
(Sponsored by Clara Maass Hospital and Academy of Medicine)
- 10 **Gynecological Problems**
- 17 **Emergencies of Pregnancy and Labor**
- 24 **Pulmonary Function Testing**
9-11 a.m.—Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex Hospital, AAFP, and Academy of Medicine of New Jersey)
- 10 **Surgical Pathology-Radiology**
11 a.m.-12 noon—Our Lady of Lourdes Hospital, Camden
(Sponsored by Academy of Medicine of New Jersey and Our Lady of Lourdes Hospital)
- 10 **Acupuncture**
1:30 p.m.—John E. Runnells Hospital, Berkeley Heights
(Sponsored by Academy of Medicine of New Jersey)
- 10 **Antiarrhythmic Drugs—B-Adrenergic Blocking Agents**
4-5 p.m.—St. Joseph's Hospital, Paterson
(Sponsored by St. Joseph's Medical Center and Academy of Medicine)
- 11 **PSRO—The Real World of Regulations and Standards**
8:30-10:30 p.m., Marriott Motor Hotel, Saddlebrook
(Sponsored by Academy of Medicine and Bergen, Essex and Passaic County Medical Societies)
- 15 **Alcoholism**
Ancora Psychiatric Hospital, Hammonton
(Sponsored by Academy of Medicine of New Jersey)
- 16 **Allergy Meeting**
8-10 p.m.—Holy Name Hospital, Teaneck
(Sponsored by Englewood Hospital, Holy Name Hospital and Academy of Medicine)
- 16 **Proper Use of Blood Gases**
9:00 a.m.—Holy Name Hospital, Teaneck
(Sponsored by Academy of Medicine of New Jersey)
- 16 **Response of Aged to Anesthetic Procedures**
4-5 p.m.—CMDNJ, Newark
- 16 **Response of Aged to Operative Stress**
5-6 p.m.—CMDNJ, Newark
- 23 **Neurological Changes During Senility**
4-5 p.m.—CMDNJ, Newark
- 23 **The Aging Eye**
5-6 p.m.—CMDNJ, Newark
- 23 **Psychiatric Problems of the Aged**
4-6 p.m.—CMDNJ, Newark
(Sponsored by CMDNJ, AAFP, and Academy of Medicine of New Jersey)
- 17 **Diagnosis and Treatment of Joint Disease**
- 24 **Hematological Manifestations of Systemic Dis.**
8-9:15 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Helene Fuld Hospital and Academy of Medicine of New Jersey)
- 17 **Clinical Symposia—Series VIII: Hypertension**
10 a.m.-5 p.m.—St. Joseph's Medical Center, Paterson
(Sponsored by Academy of Medicine of New Jersey and St. Joseph's Hospital)
- 17 **Management of Respiratory Failure**
11:30 a.m.—Veteran's Administration Hospital, East Orange
(Sponsored by CMDNJ Pulmonary Disease Section and Academy of Medicine of New Jersey)
- 17 **Current Topics in Psychiatry**
3-4:30 p.m.—Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)
- 18 **Graduate Teaching Program**
4:30-6 p.m.—Somerset Hospital, Somerville
(Sponsored by Academy of Medicine and Somerset Hospital)
- 18 **Bleeding Diseases**
8:30 a.m.—Englewood Hospital, Englewood
(Sponsored by Academy of Medicine of New Jersey)
- 18 **Northern New Jersey Chest Conferences**
7:30-9:30 p.m.—Morristown Memorial Hospital, Morristown
(Sponsored by Academy of Medicine of New Jersey and New Jersey Thoracic Society)
- 23 **Differential Diagnosis of Arthritis**
8 p.m.—Warren Hospital, Phillipsburg
(Sponsored by Academy of Medicine of New Jersey)
- 24 **Neurology Cases of Clinical Interest**
7-9 p.m.—Veterans Administration Hospital, East Orange
(Sponsored by CMDNJ Neurology Section and Academy of Medicine)
- 24 **Categorization of Hospital Emergency Facilities**
9 a.m.—Holiday Inn, North Brunswick
(Sponsored by Interagency Commission on Emergency Medical Care)

24 Annual William P. Burpeau Award Dinner
6:30 p.m.—Rod's 1920 Roadhouse, West Orange
(Sponsored by Academy of Medicine of New Jersey, Urology Section)

25 Total Body Scanning
7:15-10:15 p.m.—Hospital Center at Orange
(Sponsored by New Jersey Radiological Society and Academy of Medicine of New Jersey)

May

1 Fate of Internship
1 p.m.—Rutgers Medical School, Piscataway
(Sponsored by Association of Hospital Directors of Medical Education and Academy of Medicine)

1 Current Topics in Psychiatry
15 3-4 p.m.—Fair Oaks Hospital Summit
29 (Sponsored by Fair Oaks Hospital and Academy of Medicine)

1 Environmental Cancer in the Year 2000
8 Unusual Causes of Heart Failure and Their Management

15 Hemorrhagic Septic Shock
22 New Development in Infectious Diseases
29 ENT in Office Practice
9-11 a.m.—Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex Hospital, AAFP, and Academy of Medicine of New Jersey)

1 Coagulation Defects
22 Eye Manifestations of Systemic Diseases
29 Early Recognition of Brain Tumors
8-9:15 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Helene Fuld Hospital and Academy of Medicine of New Jersey)

1 Thromboembolism
8 Diseases Related to Sunlight
15 Chemotherapy of Gastrointestinal Cancer
22 Antibiotic Selection in Clinical Practice
29 Ovarian Tumors
10:30-11:30 a.m., Clara Maass Memorial Hospital, Belleville
(Sponsored by Academy of Medicine of New Jersey and Clara Maass Hospital)

3 Differential Diagnosis of Jaundice
9 a.m.—St. Francis Hospital, Trenton
(Sponsored by Academy of Medicine of New Jersey)

6- Johnson & Johnson Visiting Professorship in
10 Pediatrics
8 a.m.-5 p.m., Somerset Hospital, Somerville
(Sponsored by Academy of Medicine of New Jersey and Somerset Hospital)

7 Annual Dinner Meeting
Chanticleer Restaurant, Millburn
(New Jersey Dermatology Society)

9 Annual Meeting
9 p.m.—Carriage Trade, East Orange
(Essex County Medical Society)

11- Annual Meeting
14 Atlantic City, New Jersey
(The Medical Society of New Jersey)

14 Proper Use of Antibiotics
9 p.m.—Bayonne Hospital, Bayonne
(Sponsored by AAFP and Academy of Medicine of New Jersey)

14 Pediatric Seminar
11:30 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Helene Fuld Hospital and Ross Laboratories)

15 Transfer Factor and Its Use in Bacterial and Fungal Infection
11:30 a.m.—Veteran's Administration Hospital, East Orange
(Sponsored by CMDNJ Pulmonary Disease Section and Academy of Medicine of New Jersey)

15 Blood Gases
11:30 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by AAFP and Academy of Medicine of New Jersey)

16 Therapy Sessions
Pascack Valley Hospital, Westwood
(Sponsored by New Jersey Radiological Society and Academy of Medicine of New Jersey)

16 Graduate Teaching Program
4:30-6 p.m.—Somerset Hospital, Somerville
(Sponsored by Academy of Medicine and Somerset Hospital)

17 Clinical Endocrinology
11 a.m.—Perth Amboy General Hospital, Perth Amboy
(Sponsored by AAFP and Academy of Medicine of New Jersey)

20 Diagnosis and Treatment of Shock
1:00 p.m.—Ancora Psychiatric Hospital, Hammonton
(Sponsored by Academy of Medicine of New Jersey)

21- Mid-Atlantic Health Assembly

23 Atlantic City
22 Psychiatry-Suicide
1 p.m.—Trenton Psychiatric Hospital, Trenton
(Sponsored by Academy of Medicine of New Jersey)

22 Annual George Fried Memorial Lecture
9:00 a.m.—Newark Beth Israel Hospital, Newark

23 Arthrography
7:15-10:15 p.m.—Hospital Center at Orange
(Sponsored by New Jersey Radiological Society and Academy of Medicine of New Jersey)

24 Management of the Fetus at Rest
CMDNJ—New Jersey Medical School, Newark
(Sponsored by New Jersey Medical School and Academy of Medicine of New Jersey)

29 The Problem Fetus
CMDNJ—New Jersey Medical School, Newark
(Sponsored by New Jersey Medical School and Academy of Medicine of New Jersey)

29 Annual Awards Dinner
6:30 p.m.—Chanticleer Restaurant, Millburn
(Academy of Medicine of New Jersey)

29 Neurology Cases of Clinical Interest
7-9 p.m.—Veterans Administration Hospital, East Orange
(Sponsored by CMDNJ Neurology Section and Academy of Medicine)

June

5 Fluid and Electrolyte Problems in Pediatrics
12 Radiotherapy of Gastrointestinal Cancer
10:30-11:30 a.m. Clara Maass Memorial Hospital, Belleville

(Sponsored by the Academy of Medicine of New Jersey and Clara Maass Hospital)

5 **Spinal Cord Lesions**

9 **Stroke Syndrome**

8-9:15 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Helene Fuld Hospital and Academy of Medicine of New Jersey)

5 **Stress and the Gastrointestinal Tract**

2-5 p.m.—Roche Laboratories, Nutley
(Sponsored by Academy of Medicine of New Jersey)

11 **Medical-Legal Aspects of Medicine in Surgery**
9 p.m.—Bayonne Hospital, Bayonne
(Sponsored by AAFP and Academy of Medicine of New Jersey)

12 **Current Topics in Psychiatry**

26 3-4:30 p.m.—Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

17 **Diagnosis in Neurology and Neurosurgery**

1 p.m.—Ancora Psychiatric Hospital, Hammonton
(Sponsored by AAFP and Academy of Medicine of New Jersey)

OBITUARIES

Dr. Maurice Borow

On January 26, 1974, Maurice Borow, M.D., a member of our Somerset County Medical Society, who had practiced in Fort Myers, Florida since 1950, died in Naples, Florida. He was formerly associated, in Bound Brook, with his brothers, Dr. Benjamin, Dr. Henry, and Dr. Louis Borow. He received his medical degree from Temple University School of Medicine in 1927, and did postgraduate work in obstetrics and gynecology at the University of Vienna in Austria and at the University of Buffalo and Postgraduate Hospital in New York. He was a Founding Fellow of the American College of Obstetricians and Gynecologists. While in New Jersey, Dr. Borow had been affiliated with the Bound Brook and Somerset Hospitals.

Dr. Herman Cohen

Herman Cohen, M.D., director of proctology at St. Francis Hospital in Trenton, died suddenly at his office on February 9, 1974. Born in 1902, in Philadelphia, Dr. Cohen was a graduate of the University of Maryland School of Medicine, class of 1929. He was a member of the American Society of Colon and Rectal Surgeons and the New Jersey Proctologic Society, of which he was a past president. During World War II, he served his country for thirty months in the Army Medical Corps, retiring with the rank of Ma-

jor. Dr. Cohen was active in the affairs of his home community, having been police surgeon for Hamilton Township for over 25 years and consultant at the New Jersey State Prison. He was a member of our Mercer County Component Society.

Dr. Ben Hymes

One of Morris County's senior anesthetists, Ben Hymes, M.D., died on January 30, 1974. Dr. Hymes was a graduate of the Medical School at St. Louis University in 1932, and engaged in the practice of obstetrics and gynecology in Newark until 1956. At that time he decided to pursue his interest in anesthesiology and undertook graduate studies which led to board certification in that specialty. He relocated to Morristown and was on the active staff at Morristown Memorial Hospital. Dr. Hymes was a member of the American Society of Anesthesiologists and of the New Jersey State Society of Anesthesiologists, and had been active in the affairs of the Morris County Medical Society. He was 65 years old at the time of his death.

Dr. William A. Loori

Word has just been received from Florida of the death there, on March 8, 1973, of William A. Loori, M.D., an emeritus member of the Hudson County Medical Society. Born in 1900 and graduated from the Georgetown Medical School, class of 1924, Dr. Loori had been a general practitioner in the Jersey City area until retirement to Sebastian, Florida in 1966. He had been associated with the Jersey City Medical Center and was, for many years, med-

ical director of the Department of Health of Jersey City. He was a member of the American Public Health Association.

Dr. Donald B. Low

One of Passaic County's senior practitioners, Donald B. Low, M.D., died on January 13, 1974, after a long illness. A family practitioner and pediatrician, he had been graduated from the old Bellevue Hospital Medical College in New York in 1922. Dr. Low had been on the pediatric staff at Paterson General Hospital and was associated also with St. Joseph's and Barnert Memorial Hospitals in that city. Dr. Low was active in community affairs and served as pediatrician to the Paterson Orphan's Home, the Memorial Day Nursery, and the Florence Crittenden Home. At the time of death, he was in the 77th year of his life.

Dr. Edward W. Sprague

At the grand age of 94, Edward Wharton Sprague, M.D., died on February 21, 1974 at Presbyterian Hospital (Newark) where he was a founder and chief of surgery for many years. A 1903 graduate of Baltimore College of Physicians and Surgeons, he came to Newark City Hospital as an intern, and remained in that area all of his professional life. Dr. Sprague was a diplomate of the American Board of Surgery, of which he was a founder in 1937, and a fellow of the American College of Surgeons and one of its New Jersey governors. Among the many awards received during his career were the Edward J. Ill Award of the Academy of Medicine of New Jersey (of which he had served a term as president in 1945) for dedication to the medical profession, and the distinguished service award from the American College of Surgeons in 1960. In recognition of his service in surgery, he was knighted into the Order of Saint Sylvester by Pope Paul VI in 1964, and in 1957 he was a laureate of MSNJ's Golden Merit Award in recognition of over 50 years in the practice of medicine.

Doctor Sprague is remembered as one of the prime movers in the establishment of the

Medical-Surgical Plan of New Jersey, having been a member of the original Committee on Voluntary Health Insurance of The Medical Society of New Jersey appointed in 1938 to study cash indemnity insurance for medical costs. He was one of the Plan's first administrators, and a member of its original board of trustees. In addition to serving on the board of MSP for many years, he was a trustee of the Hospital Service Plan of New Jersey.

Noteworthy among his medical contributions was work in blood transfusion. With Dr. E. Zeh Hawkes, he accomplished the first blood transfusion in New Jersey. In his surgical practice he performed the first total gastrectomy in the State. In addition to activities at Presbyterian Hospital, Dr. Sprague was associated with United Hospitals and Saint James Hospital in Newark, Clara Maass Memorial Hospital in Belleville, Saint Barnabas Medical Center in Livingston, Mountainside Hospital in Montclair, and Irvington General Hospital in Irvington.

Doctor Sprague was a director of the Prudential Insurance Company of North America from 1934 to 1966, as well as a trustee and vice president of the Newark Welfare Federation. He was a past president of the Essex County Medical Society and of the prestigious Society of Surgeons of New Jersey.

Dr. I. Henry Young

Word has just been received of the death on November 12, 1972, of I. Henry Young, M.D., an emeritus member from our Essex County component. Born in 1900, Dr. Young was graduated from the University of Minnesota School of Medicine, class of 1924, and was a general practitioner in the Oranges before accepting a full-time position with the Adjudication Division of the Veterans Administration Regional Office in Newark in 1966. While engaged in private practice he had been associated with the East Orange General Hospital and the Irvington General Hospital. In 1970, Dr. Young retired to Hallandale, Florida, where he resided at the time of his death.

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other diseases
come into
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VASODILAN[®]
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the compatible vasodilator...
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The cerebral or peripheral vascular disease patient often has coexisting disease¹ which calls for another drug along with his vasodilator. It may be a hypoglycemic, miotic, antihypertensive, diuretic, anticoagulant, corticosteroid, or coronary vasodilator.

Vasodilan is not incompatible with any of these drugs—no treatment conflict has been reported. And, unlike other vasodilators, Vasodilan has not been reported to affect carbohydrate metabolism, liver function, or intraocular pressure—or to complicate treatment of diabetes, hypertension, peptic ulcer, glaucoma, or liver disease.

In fact, there are no known contraindications to the use of Vasodilan in recommended oral doses, other than that it should not be given in the presence of frank arterial bleeding or immediately postpartum.

Indications: Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.
3. Threatened abortion.

Final classification of the less-than-effective indications requires further investigation.

Composition: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.

Dosage and Administration: 10 to 20 mg. three or four times daily.

Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Adverse Reactions: On rare occasions, oral administration of the drug has been associated in time with the occurrence of severe rash. When rash appears, the drug should be discontinued. Occasional overdosage effects such as transient palpitation or dizziness are usually controlled by reducing the dose.

Supplied: Tablets, 10 mg.—bottles of 100, 1000, 5000 and Unit Dose; 20 mg.—bottles of 100, 500 and Unit Dose.

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1. Gertler, M. M., et al.: Geriatrics 25:134-148 (May) 1970.

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Methyltestosterone N.F. —25, 10, 5 mg.

For the treatment of impotence due to androgenic deficiency in the male.

DESCRIPTION: Methyltestosterone is 17 β -Hydroxy-17-Methylandroster-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgenic deficiency. 3. Impotence due to androgenic deficiency. 4. Postpuberal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of cli-

macteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be dis-

continued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. In the male: Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **HOW SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250.

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BOOK REVIEWS

Handbook of Surgery. John L. Wilson, M.D., Editor. Los Altos, California, Lange, 1973. Pp. 877. Illustrated. (Softback—\$7)

A handbook is meant to provide practical rule-of-thumb information and therefore of necessity must be concise and didactic. Wilson and his collaborators have succeeded in mentioning virtually every eventuality the surgeon (of whatever persuasion) may encounter. Unfortunately, in so doing some sections swing from sophomoric to philosophical. The former may be forgiven by the need for all-inclusiveness, but the latter more properly should be reserved for the monographs.

There are delightfully clear, useful illustrations along with frequent tabular summaries which are well organized and noteworthy. Indexing is good, but one might wish at least a listing of definitive references for the major topics.

In this day of superspecialization, the already practicing surgeon might wish for a handbook peculiar to his field of interest. If, however, surgical omnipotence is to be kept between two covers in handbook form, Wilson has done his work well. Obviously, medical students and house officers will make the greatest use of this book, but established surgeons cannot help but find nuggets of long-forgotten information.

James S. Todd, M.D.

Mensendieck: Your Posture and Your Pains. E. B. Lagerwerff and K. A. Perloth. New York, Doubleday, 1973. Pp. 246. Illustrated. (\$7.95).

The authors state "correct posture is the ultimate of intelligent multiple muscle control." They also claim that correct posture will eliminate unnecessary aches and pains. It is hard to find fault with such a statement. Good posture is a worthwhile goal and this may be one way of achieving it. The book certainly does not make exaggerated claims, but simply presents directions and exercises aimed at conditioning the various body parts. For the busy physician it is not required reading.

Peter N. Carbonara, M.D.

Neonatology. Richard H. Behrman, Editor. St. Louis, Mosby, 1973. Pp. 698. Illustrated. (\$39.50)

This book is among the first to deal comprehensively with a rapidly expanding specialty. In the past 15 years we have seen this field develop in an extraordinary fashion to an almost unrecognizable point in continued therapies of the newborn. The textural matter of *Neonatology* clearly defines high-risk infants and categorically groups those to be cared for in intensive care nurseries.

Dr. Behrman and his contributors have done an excellent job in their initial endeavor to present expert opinions on diverse neonatal subject matter. With men like Auld, Davidson, Driscoll, James, and

Morishima (to mention a few), how could this book be faulted? The material is especially geared to enlighten one on concepts of fetal and neonatal pathophysiology and biochemistry. Mainly because of this emphasis, the book differs from the existing classics of the newborn.

As with other multi-authored books there is some redundancy in subject matter but not in a confusing, conflicting, or boring manner. The chapter on diseases of the cardiovascular system is probably too long, comprising over one hundred pages of the book. The subject matter on transport vans could have been more detailed. Also, a chapter on the more specialized equipment and manufacturers of such would be enlightening to some readers.

This book is geared, naturally, to all dealing in neonatal care and should help us discharge our responsibilities in a more conscientious (and forensic) manner.

Frank C. Vanore, M.D.

Drugs of Choice: 1974-1975. Ninth Edition. Edited by Walter Modell, M.D., St. Louis, Mosby, 1974. Pp. 832. (\$23.75)

Under the editorship of Professor Modell, forty contributors of professorial rank have again provided an updated version of this excellent reference text. *Drugs of Choice* is what it was meant to be: "a practical guide to the selection of the best drug for a particular therapeutic problem." The book goes beyond that by providing a mini-course in the pathological physiology and clinical applications as well.

All chapters have been revised, five have been entirely rewritten by new authors, while two chapters from the eighth edition were dropped. The discussion of legal complications is most important, including a number of specific recommendations "to minimize the risk of suit for an injury caused by a drug."

Among the quotable quotes in the book:

Walter Modell, chapter 19, "Drugs for Obesity." "It is interesting in this connection that, if these drugs were specific anorexics and if their supporters really believed so, it would not be necessary, as all of them seem to find, to put patients on a restricted diet."

Rachmiel Levine and Morton Smith, chapter 30, "Antidiabetic Drugs." "None of the antidiabetic agents available today, the insulins or the oral hypoglycemic drugs, can achieve all of these objectives" (of the ideal drug for the treatment of diabetes mellitus).

William B. Bean, chapter 6, "Drugs for Nutritional Disorders." "Happily the recent flurry of using vitamin E for nonspecific ulcers and sundry kinds of heart failure has gone the way of puppy-dog fat and unicorns' horns." "The recent craze for astronomical doses of vitamin C for the common cold, with much testimony but no evidence, illustrated the never-ending but melancholy gulling of the innocent by the ignorant."

The "green section" or "drug index" is a 113-page alphabetical list of current drugs, including generic and trade names, routes of administration, and dosage form.

Drugs of Choice: 1974-1975 should be obtained by every physician for his reference library, whether he has the previous edition or not.

Arthur Krosnick, M.D.

Guidelines for Comprehensive Nursing Care in Cancer. Edited by Helen Duncan Behnke, R.N. New York, Springer, 1973. Pp. 391. (\$7.50).

This book reports on a group of ten continuing education seminars (held at Memorial Sloan-Kettering Cancer Center) concerned with nursing management of patients with various types of cancer. It is noted that the seminars were under the direction of a nurse and a physician and used a multidisciplinary staff.

The meeting followed a similar pattern of having a seminar leader and participants who presented specific aspects of information on a particular area. This was followed by questions and answers. A suggested list of readings on the area of discussion was provided.

This reviewer found that the formal seminar content on all of the areas lacked depth. The information presented was limited and superficial. The discussions of both nursing and non-nursing offered little above routine information. Much of what was said in the formal presentation should have been a part of the knowledge of the registered nurse and of her practice. The more interesting information came forth in the question and answer sessions. However, the appendixes which follow some but not all of the seminars provide help to nurses whose own practice is non-specialized. Particularly worthwhile are the "do's and don'ts for hand and arm care" following a mastectomy and the advice on colostomy care. Though there was no new information offered, the non-specialist nurse is provided with a succinct reference on the needs and management of such patients.

It appears essential to note that though the primary concern of the seminars was nursing management, none of the leaders was a nurse—all were physicians. One cannot help but wonder why this was so and also what differences, if any, would have occurred in the content of the seminars if nurses had had leadership.

Nancy Ann C. Sarsfield, R.N., Ph.D.

What To Do About Your Brain-Injured Child. Glenn Doman. New York, Doubleday, 1974. Pp. 291. (\$7.95)

The full title of this book is "What to do about your brain-injured child, or brain damaged, mentally retarded, mentally deficient, cerebral palsied, spastic, flaccid, rigid, epileptic, autistic, athetoid, hyperactive child." The dust jacket indicates that this is a "valuable volume for parents and fellow professionals" and states that "parents, those commonly ignored, sometimes despised, quickly patronized, almost never believed people, will have done at home all the treatment which brought a child from despair to hope, from paralysis to walking, from blindness to reading from an I.Q. of 70 to an I.Q. of 140, from dumbness to speech." The book records the trials and tribulations, inspirations, insights and career of the author and his associates that ultimately culminated in the establishment of the Institute for the Achievement of Human Potential in Philadelphia and the spread of its concepts and programs to other centers throughout the world. The treatment concept is based on "neurological organization within the central nervous system rather than at the resultant peripheral symptoms." There is a description of the "developmental profile" formulated by the Institute and the treatment plans that involve the child spending all day on the floor in the prone position, homolateral patterning, cross patterning, breathing exercises, and so on. The book, as an appendix, even in-

cludes an article reprinted from JAMA in September of 1960 which sought to explain the concepts and the treatment modalities of the Institute.

Unfortunately most of the emphasis is on the history of the author and his coworkers in developing their ideas and it abounds in superlatives both about themselves and those in any way associated with their project. For example, the author, in referring to a stage in his early career states, "I was possibly the most successful therapist around." In discussing the late Dr. Temple Faye, the author borders on sycophancy with statements such as "Faye at his lowest was quite simply higher than his colleagues at their highest." The literary style of the writing is sophomoric. Terms abound such as "hurt brain;" the child was "smart, smart, smart;" "I saw the pattern with utter and complete clarity;" "the unspoken law holds that all mothers are idiots and they have no truth in them."

The book does not respond to the question in its title. It is rather a paean to a group of people who devised certain concepts and established an Institute. Apparently the answer to the title is to take a child with "a hurt brain" to the Institute for the Achievement of Human Potential. Their concept of physiology, the results of treatment, and so on, are and have been open to question by experts in this field. The wonderful results reported from the Institute have not been duplicated by many others. The eight to sixteen hour a day programs involving family, friends, neighbors and others have not, from the observations of those outside the Institute, produced the miraculous cures or improvements herein suggested. The author and his associates should, however, be afforded recognition and respect for centering attention upon these afflicted children. Getting the children out of bed or chairs and onto firm surfaces where movement can be initiated must be recognized as a positive contribution.

This book, however, cannot be recommended either for the parent or the physician to provide the answers to the question that its title raises. The reviewer can most concisely and reluctantly sum up his impression of the book by quoting the first sentence of its introduction by Raymundo Veras, M.D. which states, "this book of Glenn Doman is in many ways a very bad book."

Joseph J. Kline, M.D.

Toxicity of Pure Foods. E. M. Boyd (deceased) and C. E. Boyd. Cleveland, Ohio, CRC Press, 1973. Pp. 260. Illustrated. (\$30).

The lethality of ingested pure foods in man is a novel concept, but in animals the lethal toxicity of carbohydrates, fats and oils, proteins, water and salts, and food adjuvants has been extensively documented. Fortunately, chance consumption of lethal doses of pure foods in humans is improbable. For example, a grown man would have to eat half his body weight of starch before getting doses that killed albino rats in terms of g/kg body weight. However, a child of 22 pounds eating and retaining half a pound of candy would receive the equivalent of a dose of sucrose of 25 g/kg, which is a fatal dose in albino rats.

This volume is primarily a compilation of laboratory animal studies, many performed by the authors, relating to lethal toxicities caused by pure foods in large doses. The problem of sublethal toxicity has not yet received adequate study, either in animals or in man. The book is of limited interest to physicians.

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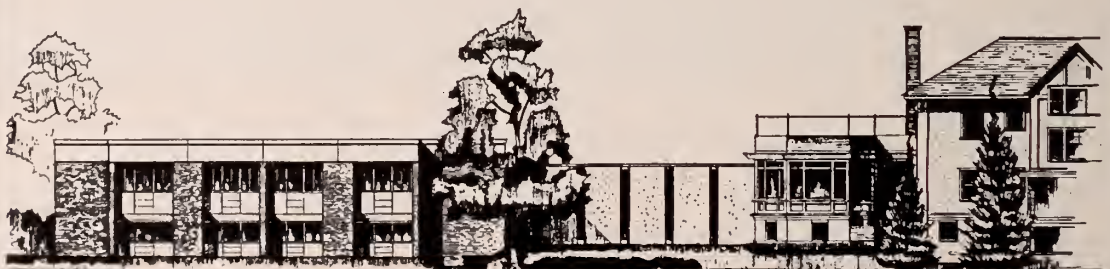
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EDITORIALS

English: The Number One Language of Medicine

Today, more articles in the biological sciences are written in English than in any other language. It was not always so, but these days, English is number one and others don't even come close. Some 24 per cent of the world's biologic science papers are in English. The number two language, Russian, accounted for only 11 percent. Spanish came third with 8 per cent.¹ German was the language of original publication of only 7½ per cent of the papers. Why should this be? How can any language with our absurdities of spelling and pronunciation have become the world's number one vehicle of communication?

In 1750, French was spoken by more people than any other language in the world. German, Spanish, Russian, and Italian came in that order, so that English was then outranked by five other languages.² But in 1973, more than 350 million people were using English as their primary tongue, and another 650 million were able to communicate adequately in English. Our language is understandable to almost a billion people: surely the greatest success story in communication since Latin was abandoned as Europe's *lingua franca*.³

The diffusion of English is due to the fact that it is a flexible language rather than an inflected one, that its grammatical structure is simple, and that one can learn it without being worried about masculine or feminine words, or trying to get adjectives to agree with the noun in gender, or remembering when to use the dative case. Indeed, principal credit goes not to the travelers' checks, but to the amazing flexibility of our language. We use nouns as verbs (you can really *chair* a meeting, or *fiddle* while the town burns), and verbs as nouns (ever hear of a *teach-in*?),

adjectives as nouns (the *good* die young, remember?), and nouns as adjectives (ever go to a *bachelor* party?). A little word like *off* can be an adverb (my stock is always falling *off*) or an adjective (when that happens, it's an *off* day), or a preposition (play *off* key), or even a verb (*off* with his head!). And the beauty of it is, you don't care, and probably don't know, whether you are using it as an adjective or a preposition. In English you use individual words like building blocks without worry about case, gender, or tense. ("Long time, no see" may be rejected by the purist, as ungrammatical, but it does convey the idea.)

More than 70 per cent of the world's mail is written in English.⁴ That simple statistic states the case eloquently. There are more radio programs in English than in all other languages put together!

English has an exceptionally rich vocabulary. There is a world of difference, subtle or crude, between "to like" and "to love" but you can't use different words in French, German, Spanish, or Italian. Both concepts are expressed by *aimer*, *lieben*, *amar*, and *amare*. Then, too, English is more hospitable to and more readily naturalizes (Anglicizes or Americanizes) foreign words than any other language. Time was when you had to write in italics such alien imports as *morale*, *habeas corpus*, *kibitz*, and *canyon*. But not for long. They have slipped quietly into the main stream of English and seem to have found a home with us. Thus, to say a courteous goodbye, the Semitic languages use "peace," which in their tongues is *sholem* or *salaam*; and English takes it up and transmutes *sholem* or *salaam* into "so-long;" and in this breezy form it goes wherever American soldiers go (practically everywhere). "So-long" is first Americanized and then exported to the wide, wide world.

Ogden⁵ has shown that with a lean lexicon of fewer than 900 words, you can communicate adequately any idea you wanted, outside of advanced technologic or philosophic ones.⁶

This would not be possible in a highly inflected or conjugated language, like Spanish or German.

Most of you who read these words will, like us, be native Americans for whom English is the mother tongue. But many of our readers were educated abroad; and that you can so fluently follow us is, in the first place, evidence of your own perseverance and intelligence. But it is also a tribute to the sophisticated, polished, and highly elastic language of ours—and yours. Barnett⁷ quotes a Hindu by the name of Prem Bhatia, who was the Editor of *The Times* of Delhi, India. This newspaper is printed in English. And Mr. Bhatia wrote: "We in India got rid of the British through the effective use of the English language. We quoted Macaulay and Edmund Burke and even Shakespeare." Oh well, practically everybody quotes Shakespeare.

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1. Survey made by *Biological Abstracts* of Philadelphia.

2. In all these calculations, Chinese is omitted. The major Chinese dialects are reciprocally incomprehensible to all but an educated upper crust. For most people in China, the understandable dialect is meaningful to perhaps 100 or 150 million. So little indigenous Chinese literature has been exported, that for all practical purposes, the language is immured in its country of origin and makes small impact on the science and literature of the rest of the world.

3. It is difficult to get accurate figures as to how many people speak a certain language. We have checked Frederick Bodmer's "Loom of Language" (New York, 1944, Norton), C. F. Hockett's "Linguistics" (New York, 1958, Macmillan), J. P. Hughes' "Science of Language" (New York, 1971), Random House), Mario Pei's "Story of Language" (Philadelphia, 1949, Lippincott), Simeon Potter's "Language in the Modern World" (Baltimore, 1960, Penguin), and Lincoln Barnett's "Treasure of Our Tongue" (New York, 1964, Knopf), and have found no two sets of figures that agree. Median figures for the seven languages that carry the great bulk of the world's scientific literature would seem to shape up as follows—in millions of people for whom this is the primary tongue: (For reasons indicated in footnote 2, Chinese is omitted) English: 350; Spanish: 140; Russian: 130; German: 100; Japanese: 95; French: 65; Italian: 55.

4. Barnett, Lincoln: *The Treasure of Our Tongue*. New York, Knopf, 1964, p. 7.

5. Ogden, C. K.: *Basic English*. New York, Harcourt-Brace, 1934.

6. We tried this out just for fun, and by using the verb "get" plus some other basic words, we found we could say "get better" (instead of improve), "get the better of" (instead of vanquish), "get him to go" (instead of eject him), "get up" (for arise), and such combinations as "get going" or "get your goat" or "get about" or even "I got him in the mouth" and so on and on. This is a minor illustration of the wonderful plasticity of our language.

7. Barnett, Lincoln: *The Treasure of Our Tongue*. New York, Knopf, 1964, p. 38. H.A.D.

Research Is Alive and Well: Only Funding Is Hibernating

In the item on page 404 concerning *Ursus Americanus*, the black bear we have all seen and fed in zoos, we learn of an exciting application of comparative physiological and metabolic research to human needs. The critics of research workers too often complain that the results in animals may not be directly applicable to human beings. From antibiotics to Zylprim®, this judgment has been proved to be without merit.

Research in the United States is in crisis with cuts in research grants leading to disbanding of core members of research teams and delay, foreshortening, or even abandonment of worthwhile projects. Such overwhelming possibilities as the blood glucose sensor and artificial pancreas or the potential for transplantation of viable, hormone-producing alpha and beta islet cells into diabetics may well hinge on the sources of research capitalization for their next step into human application.

Such a turn of events is most disturbing in this period in American history where unsavory couriers run about with sufficient funds in brown paper bags to support a research program for a year or more. It is true that ideas, not money, result in a research breakthrough, but ideas without money lay fallow. Not to be forgotten is the effect of that great adversary, inflation, on the costs of research support.

Let us hope that the support of research by federal dollars is only hibernating, because research is alive and well. A.K.

ORIGINAL ARTICLES

The author, by description, photographs, and case reports, illustrates a new addition to our endoscopic armamentarium.

Diagnostic and Therapeutic Applications of Flexible Fiberoptic Colonoscopy

Raymond F. Crystal, M.D./Livingston*

Flexible fiberoptic colonoscopy, a new procedure reported in the medical literature in 1969,^{1,2} has attracted interest and broadened experience resulting in additional reports describing refinements of technique and additional diagnostic and therapeutic possibilities.^{3,4,5,6} New procedures are being explored and modifications of instruments made. In addition, as was very clearly stated in an editorial in *The Journal of the American Medical Association* in July, 1973,⁷ the qualifications for those who are to use these instruments for diagnosis, much less for treatment, have not yet been agreed upon.

The purpose of this paper is to discuss our indications for diagnostic and therapeutic colonoscopy, and to create an awareness of this modality. Readers interested in learning the technique are referred to the appropriate literature⁴ and to skilled endoscopists who can provide instruction and supervision, while insuring safety and effectiveness.

Materials and Methods

Although instruments of different lengths (86 cm., and 105 cm., and 165 cm.) and manufacture are currently available, most of our experience has been with the ACMI Model FO-9000P (105 cm.) colonoscope (Figure 1). The instrument is flexible and has one fiberbundle to conduct illumination from the light source. It has a second fiberbundle and lens

system to conduct the image from the distal end of the scope to the eye. Air and water may be insufflated through the scope and suction is available, biopsies and cytology specimens (by cytology brush or modified dental water jet) may be taken. Still or cine photographs may be obtained and cautery snare excision of polyps may be performed using polypectomy snare.

In most cases, using the 105 cm. instrument, the distal transverse colon can be reached. If there is great redundancy of the sigmoid colon, abnormal fixation of the bowel by adhesions or tumor, difficult obstructing lesions or sharp angulation of the descending sigmoid junction or the splenic flexure, advancement to that level may not be possible. Conversely, we have visualized the terminal ileum with this instrument in a number of patients in whom the anatomic configuration was favorable (Figure 2). There does not appear to be any way to predict, with certainty, how far the scope can be advanced. Rarely, patients experience pain so severe as to require early termination of the procedure. In general, patients have been premedicated with meperidine, 25 mg. and diazepam, 5 mg. I.V., and with meperidine, 25 mg. I.M., and diazepam, 5 mg. I.M. We have not carried out this procedure under general anesthesia because the patient's response to pressure as the

*Associate Surgeon, St. Barnabas Medical Center, Livingston, and Clinical Instructor in Surgery, CMDNJ, New Jersey Medical School, Newark.

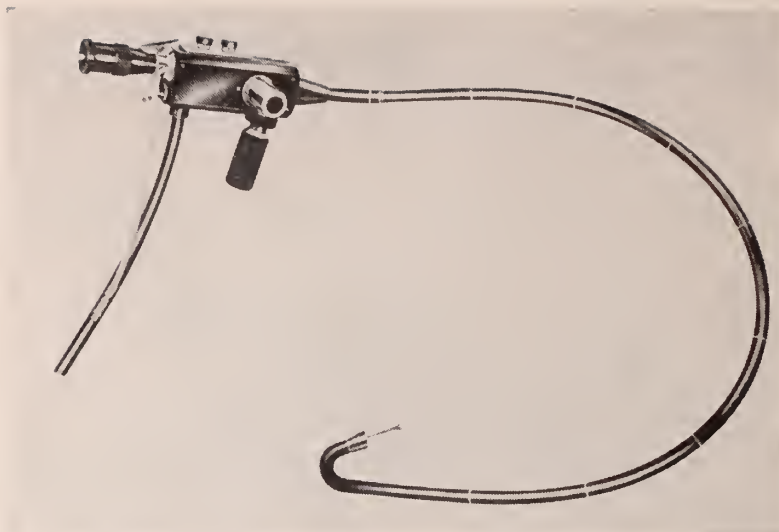


Figure 1—105 centimeter flexible fiberoptic colonoscope (photograph courtesy American Cystoscope Makers, Inc.)

scope is advanced is a very valuable factor to be evaluated.

It is necessary to mechanically cleanse the colon thoroughly prior to examination since

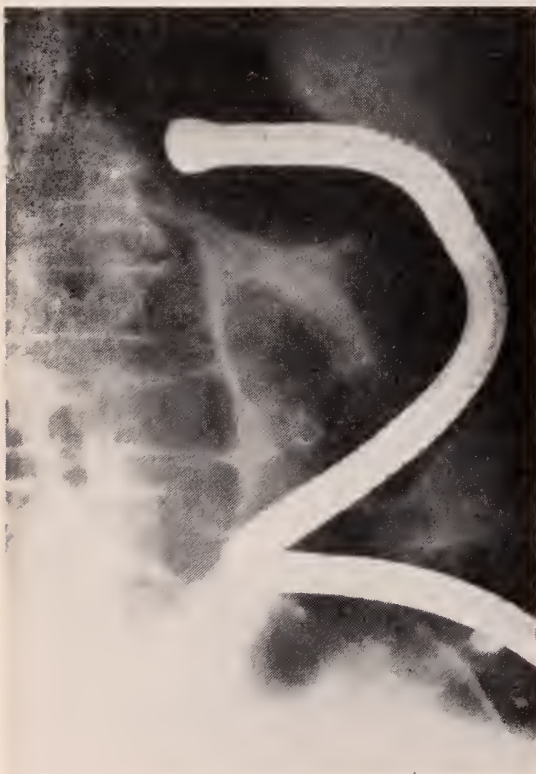


Figure 2—Colonoscope advanced to splenic flexure. Polyp in the descending colon and polyp in the sigmoid were biopsied and excised.

the capability of carrying out any cleansing procedure through the instrument is limited. It has been our practice to place the patient on a two-day bowel preparation regimen consisting of clear liquid diet, Fleet's Phosphosoda® orally, and enemas until clear each evening. We believe diagnostic procedures, including biopsy, may be performed safely on an outpatient basis. The procedure is often time-consuming, requiring an average of forty-five minutes, and a difficult examination may involve two hours. Prior to transcolonoscopic polypectomy, the patient is prepared in the hospital with the same technique used for transabdominal colotomy and polypectomy. The endoscopic procedure is then performed in the operating room with full instrumentation readily available for laparotomy if endoscopic polypectomy is unsuccessful or if a complication should ensue. The danger of perforation of the bowel wall and uncontrolled hemorrhage requiring laparotomy has been reported by others. Following polypectomy the patients are observed for twenty-four hours in the hospital and then discharged.

Case Reports

Case #1. A forty-nine-year-old male initially was seen in 1969 with a sigmoid polyp found on a routine sigmoidoscopic examination. The polyp was biopsied and fulgurated. Additional polyps were found and treated in a similar manner on followup sigmoid-

oscopy in 1970, 1972 and June, 1973. In March, 1972 barium enema examination showed diverticulosis of the descending and sigmoid colon without visible polyps. On July 6, 1973, colonoscopy was carried out to the distal transverse colon. A sessile polyp could be visualized in the hepatic flexure (Figure 3) and

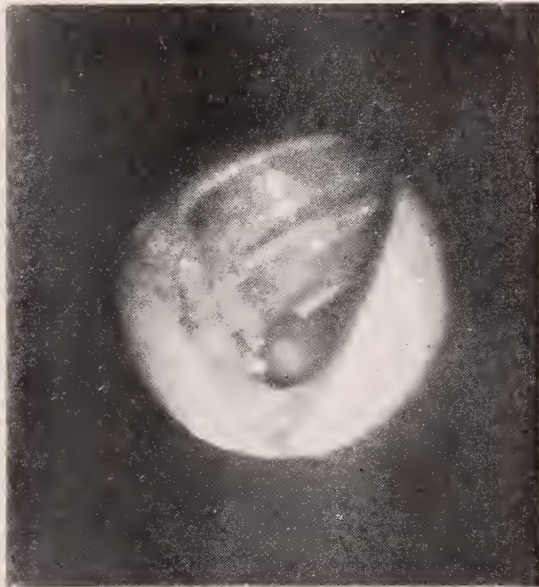


Figure 3—Colonoscopic view of polypoid carcinoma in hepatic flexure in case one. Lesion can be seen beyond characteristic triangular folds of transverse colon.

was biopsied. The pathologist reported a well differentiated adenocarcinoma. Review of cine photographs taken of the examination helped to establish precise localization of the lesion. The patient was admitted to St. Barnabas Medical Center where a repeat barium enema examination failed to visualize the lesion. Shortly after admission, patient underwent subtotal colectomy and ileorectostomy. The pathologist reporting on this surgical specimen described a poorly circumscribed, fungating tumor mass measuring 1.7 cm. in diameter corresponding to the lesion seen on colonoscopy. Microscopic examination confirmed that this was a well-differentiated, mucus-secreting, infiltrating adenocarcinoma which did not extend to the serosa. All regional lymph nodes in the specimen submitted were negative for tumor cells. The post-operative course was uncomplicated and the patient was discharged eight days after surgery.

This case is illustrative of one of the most gratifying diagnostic applications of colonoscopy. It is generally acknowledged that patients who produce adenomas are higher risks for the development of colon cancer. The incidence of invasive cancer developing in patients who have had previous removal of an adenoma may be as high as 1.2 per cent with a rate up to 4.9 per cent where multiple adenomas are present.⁸ The value of early

diagnosis and treatment can be gauged by studying the selected records of patients with absolutely asymptomatic cancer of the colon. At the University of Minnesota Cancer Detection Center, the five year survival rate for patients having no symptoms of colon cancer was 72 per cent whereas it was 32 per cent for patients who had symptoms.⁹ Thus, diagnostic colonoscopy is definitely indicated for patients who have been found to produce adenomatous colon polyps. Although an excellent barium enema with air contrast examination, in a well prepared patient, is generally accurate in detecting large colon cancers, lesions less than 2.5 cm. in diameter are easily missed. Here the colonoscope is a reliable additional tool for diagnosis.

Case #2—A forty-six-year-old female was initially seen in April, 1973, with a history of three months' change of bowel habit to loose stools. Sigmoidoscopy revealed a villous plaque at 18 cm. which was fulgurated. (She had had a trans-sigmoidoscopic polypectomy 25 years earlier.) Barium enema with air contrast, following this procedure, showed a probable polyp of the proximal sigmoid colon and a "peculiar lobular pattern with virtually no haustral pattern throughout" the transverse colon. The changes in the transverse colon were thought to be consistent with previous inflammatory disease (Figure 4). A scout film of



Figure 4—Barium enema in case two suggesting colitis.

the abdomen was suggestive of gallstones, and this was confirmed by oral cholecystogram. No lesions were seen on repeat sigmoidoscopy in May, 1973. Colonoscopy to the mid-transverse colon a month later in June, 1973 showed patchy areas of mucosal inflammation with a finely granular appearance in the



Figure 5—Colonoscopic view of mucosa of descending colon in case two, showing superficial inflammation and hemorrhage.

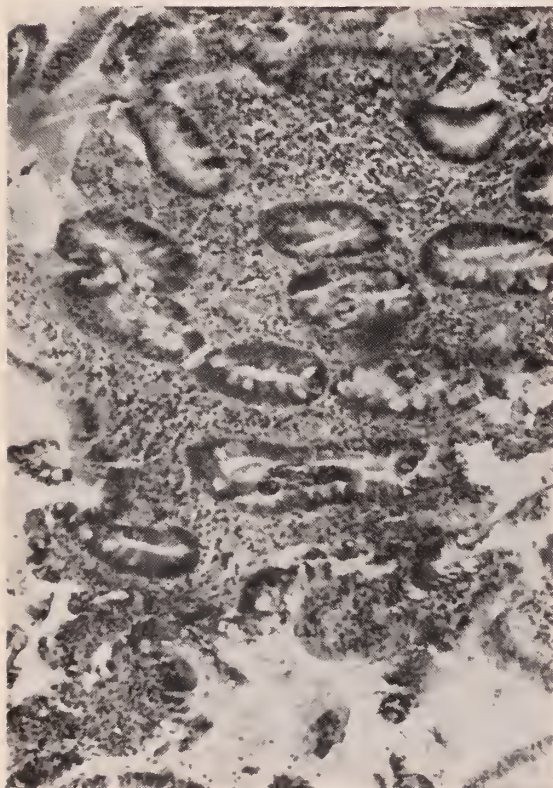


Figure 6—Biopsy specimen from descending colon in case two stained with hematoxylin and eosin. Hyperplastic colonic mucosa showing acute and chronic inflammatory cellular infiltrates within the lamina propria is seen.

transverse, descending and sigmoid colon (Figure 5). Biopsies of the transverse colon and descending colon showed acute and chronic inflammatory infiltrate (Figure 6). The patient was admitted to St. Barnabas Medical Center. Physical examination was entirely normal. Serum albumin was 3.5 gm per cent, total bilirubin 1.2 mg/100 ml, alkaline phosphatase was greater than 350 mu/ml, LDH was 130 mu/ml, SGOT was 210 mu/ml. At laparotomy, the appearance of the serosal surface of the colon was normal. Cholecystectomy and liver biopsy were performed and a T-tube was placed in the common bile duct. Operative cholangiogram revealed uniform, marked narrowing of all visible portions of the biliary tree consistent with a diagnosis of sclerosing cholangitis (Figure 7). Liver



Figure 7—Operative cholangiogram in case two showing typical appearance of diffuse sclerosing cholangitis.

biopsy showed focal portal fibrosis with non-specific chronic inflammation. The patient made an uneventful recovery.

This patient had minimal idiopathic mucosal colitis associated with sclerosing cholangitis, an association which has been noted previously.¹⁰ In some cases, there appears to be a causal relationship, with remission of the cholangitis following total proctocolectomy. In our patient the symptoms of colitis were minimal and the barium enema no more than suspicious. Colonoscopy was instrumental in confirming the diagnosis and helpful in

evaluating the extent of the disease. This case illustrates additional indications for colonoscopy: one is a suspicious, but not diagnostic, barium enema. By this technique, inflammatory lesions, suspicious filling defects, and equivocal strictures may be investigated thoroughly to determine the extent of the disease and to rule in or out the existence of possible coincidental superimposed carcinoma.

Case #3—A sixty-six-year-old male had a resection of carcinoma of the descending colon in 1966. Local recurrence was diagnosed in 1968 and radiation therapy was given. In 1970, a mass, which was palpable in the abdominal wall, was biopsied but the report was negative for malignancy. In December, 1971 the patient developed intestinal obstruction from local recurrence. Following transverse colostomy, he underwent excision of the transverse and descending colon, a segment of small bowel and a portion of the abdominal wall. Almost two years later, the patient was admitted to St. Barnabas Medical Center because of the appearance of another tumor mass in the abdominal wall. This was a 12 x 12 cm., fixed, fungating mass on the left side of the abdomen at the lateral end of a previous transverse incision. A thorough survey failed to reveal evidence of distant metastases; colonoscopic examination of the remainder of the colon was performed and no evidence of anastomotic recurrence was found, so the incisional recurrence was resected.

The colonoscope can be very useful in following the patient who has had a resection of the colon for carcinoma, both to inspect anastomotic lines above the reach of the sigmoidoscope and to examine for metachronous lesions.

Case #4—A forty-two-year-old male complained of a two to three months' history of rectal bleeding. No lesions were seen on sigmoidoscopy or barium enema with air contrast. Colonoscopy to the terminal ileum disclosed only a pedunculated polyp in the proximal sigmoid colon. The patient was then admitted to St. Barnabas Medical Center where colonoscopic polypectomy, employing the cautery snare, was performed. (Figure 8). The patient tolerated the procedure well, had no postoperative bleeding and was discharged a day later.

The accurate diagnosis of lower intestinal bleeding by colonoscopy has been documented. Lesions such as vascular malformations, colitis, and bleeding diverticula have been identified. A word of caution is in order. The colonoscope is not likely to be of assistance in localizing and diagnosing the lesion in circumstances involving acute, massive, active bleeding. Under such circumstances, the bowel lumen cannot be thoroughly visualized, but once the bleeding has slowed



Figure 8—Case Four—Teflon sleeve over snare wire can be seen extending from periphery of field to abut on stalk of polyp as snare wire is gradually tightened around stalk of polyp.

and the colon can be adequately cleansed, examination by colonoscopy may be most helpful.

The excision of pedunculated polyps through the colonoscope is perhaps the most intriguing, albeit the most dangerous, application of colonoscopy. It is very attractive to consider the avoidance of a laparotomy by an alternative, more rapid and less stressful means. The physician who would remove polyps by colonoscopy must be thoroughly familiar with, and experienced in, the techniques of diagnostic colonoscopy. The patient should be adequately prepared and facilities must be at hand for immediate laparotomy if necessary. The procedure can be highly satisfactory, but should not be used unless all dangers are recognized, and means to counter complications are at hand.

Discussion

Here, as with many innovations in medicine, there is oscillation about the midpoint in terms of application. First, the indications for and applications of a new technique may be very broad. Then, there is a period of disenchantment and, finally, the procedure

finds its proper place in the physician's armamentarium. Colonoscopy is a procedure which is being evaluated in this way presently. If used with care and responsibility, the colonoscope can be a powerful tool. If used carelessly and irresponsibly, it will acquire an unfavorable reputation. We have found the teaching attachment (Model FO-8910), which splits the image so that two persons may simultaneously observe through the scope, to be very helpful. It enables a house officer or nurse to participate actively and knowingly in the procedure and it has enabled us effectively to instruct our residents in good technique.

Summary

Current diagnostic and therapeutic applications of flexible fiberoptic colonoscopy have been discussed with illustrative case reports.

With the colonoscope we have the potential capability of visualizing the entire large intestine. Biopsies may be taken, washings and brushings for cytology study may be taken, still and cine photographs may be recorded, and polyps may be excised using the colonoscope.

Major indications for colonoscopy are:

1. Further investigation following suspicious barium enema (filling defects, strictures, inflammatory lesions).

2. Investigation of lower gastrointestinal bleeding.
3. Examination of patients who have had colon polyps.
4. Survey of colitis patients to determine extent of disease and presence of possible malignancy.
5. Examination of patients with an abnormality or a change in bowel habit.
6. Follow-up examination of patients who have been treated for colon cancer to inspect the anastomotic line or to examine for new lesions.
7. Excision of polyps.

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Ice Water Harmless to the Overheated

Drinking cold water or ice water when you're overheated from exertion has the okay of two medical consultants in a recent issue of JAMA. The idea that drinking very cold water on a very hot day is bad for your health just isn't true, say John L. Boyer, M.D. and Allan J. Ryan, M.D.

Dr. Boyer writes: "There is no basis for concern. We have recorded the temperatures of some of our students following a high level of physical activity, and then immediately fol-

lowing ingestion of large quantities of water. There was no significant temperature change due to drinking cold water from the refrigerated drinking fountains in our gymnasium."

Dr. Ryan writes: "I am aware of no evidence to the effect that drinking ice water is harmful to athletes in the course of their participation in sports." Ice water stimulates rapid emptying of the stomach, and it is possible that stomach cramps might result, but this would not be a serious effect.

123rd

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*Innes, I. R., and Nickerson, M., in Goodman, L. S., and Gilman, A. (editors): The Pharmacological Basis of Therapeutics, ed. 4, New York, The Macmillan Company, 1970, p. 537.

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Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, U.S.P., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent.

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So far as is known, this is the first case recorded in the literature where a rolled or folded omentum presented itself as an enlarged spleen or liver.

Folded Omentum Presenting As Hepatosplenomegaly*

**H. J. Schwarz, Jr., M.D./North Bergen
and S. Chong, M.D./Jersey City**

Here is a report of a forty-one year old male who had been seen by his family physician for "indigestion," epigastric pain, and esophageal burning of six-months' duration. After a gastrointestinal x-ray study in 1965, for investigation of similar symptoms he was told he had a hiatus hernia. There was a voluntary, thirty-pound weight loss in the previous three months. In spite of losing weight, he was complaining of increased abdominal girth. He smoked three packs of cigarettes a day and drank four cups of coffee a day. His uncle had a duodenal ulcer. His mother had cholelithiasis.

The gastrointestinal x-ray series revealed a hiatus hernia. His stomach filled well with the barium mixture. No intrinsic mucosal or extrinsic pressure defects of the stomach were noted. The duodenal bulb filled well and there was no evidence of an ulcer niche. However, mucosal edema was present and this extended into the first portion of the duodenal sweep. In reference to the sweep itself, there was noted to be some straightening of the second portion of the sweep on the inner border. The remaining inner portion of the sweep failed to show flattening or stretching of the mucosa as one might expect with a lesion of the head of the pancreas. The entire sweep on its inner aspect was not enlarged. The rest of the small bowel appeared to be within normal limits. The roentgenologist's impression was hiatus hernia and non-specific duodenal bulb edema.

He was then hospitalized for further studies. We found him to be a well-nourished, well-developed male. He was five feet, seven inches and weighed 220 pounds. Blood pressure was 130/80. Abdominal palpation revealed a six-centimeter smooth, nontender mass in the area of the liver. A similar six-centimeter mass palpated in the left upper quadrant. Both masses moved with respiration. He had no leg edema. Peripheral pulses were present and normal. Reflexes were physiological. Fundi were normal. Routine blood chemistries, blood counts, and urinalysis were all nor-

mal. So was alpha feto hemoglobin. Australian antigen was negative. BSP was 6.4 per cent. Prothrombin time was 16 seconds, control 13 seconds.

		Gastric Analysis						
		Fasting	1	2	3	4	5	6
Free	Degrees	12	absent	absent	absent	12	20	absent
Total	Degrees	21	16	QNS	14	26	48	12

An electrocardiogram was normal. Chest roentgenograph and gall bladder series were normal. Flat plate of the abdomen was normal with normal hepatic shadow. Barium enema was normal. Pancreatic scan in oblique projections following intravenous selenomethionine was done. There was good uptake in the body and tail of the pancreas. The head of the pancreas showed diminished activity suggestive of a possible lesion in the head of the pancreas. Sigmoidoscope to eight inches was normal. Aortogram and selective celiac arteriograms revealed some degree of irregularity of the gastric duodenal artery, part of which may have been spasms; but the artery itself took a rather wide curve. The remaining arterial structures were unremarkable. The arteriogram further led to the preoperative diagnosis of a pancreatic neoplasm. Liver biopsy was normal.

The patient was explored and found to have the greater omentum completely rolled upon itself, the end of which was tucked up between the right diaphragm and the liver in the suprahepatic space. Both pancreas and duodenum were normal. A longitudinal incision was made over the pyloric canal. The lumen of the first portion of the duodenum was closely examined and was found to be normal. The hiatus hernia was left alone without repair. The folded omentum was dislocated from the suprahepatic spaces and returned to its normal position. The subcutaneous space was filled with a four inch penrose drain. The patient made an uneventful recovery.

Review of the literature failed to reveal rolled omentum presenting as enlarged liver. Torsion of the omentum was recorded for the first time by Eitel in 1899,¹ and since then, 186 cases have been recorded. Torsion is seldom diagnosed preoperatively.² In one series,

*From the Christ Hospital in Jersey City

only one of 165 cases was diagnosed correctly. Torsion is usually an acute abdomen and is often mistaken for acute appendicitis.³ Torsion is a clockwise or counter clockwise rotation of the omentum and is classified as primary or secondary.⁴ *Primary* means no intra-abdominal pathology except torsion. *Secondary* torsion is related to some pre-existing pathologic condition such as adhesion, bands, diverticula, hernia, or inflammatory focus. Some of the predisposing factors to primary torsion may be anatomic variations in the omentum such as tongue-like projections along the free edge as biphed, triphed or maldeveloped omentum, presence of an accessory omentum with variations in size and disposition of fat in various parts of the omentum, malformations of the pedical, obesity, sudden straining, trauma, exertion and vascular abnormalities.

Rolled omentum or folded omentum is a horizontal doubling on itself. In our patient we would classify this as the primary type because there was no intra-abdominal pathologic condition except possibly obesity

Seen one month post-operatively, the patient was no longer complaining of indigestion, gastric pain, esophageal burning, or increasing abdominal girth. His symptoms were most likely explained on a pressure basis due to the rolled omentum. The hiatus hernia was asymptomatic.

This is the first case in the literature presented of rolled or folded omentum presenting as an enlarged liver and spleen. The patient had a preoperative diagnosis of cancer of the pancreas with metastasis to the liver. On laparotomy a rolled omentum was found. It was returned to its normal position. The patient did well.

Addendum: On examination, two months post-operative, there was found recurrence of folded omentum. Omentectomy is suggested in the future.

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8534 Kennedy Boulevard

Plasma Renin Activity (PRA)*

Renin, an enzyme which is primarily secreted from the kidney, is believed to come from the granular juxtaglomerular cells of the afferent glomerular arteriole. It is secreted into the systemic circulation directly and via renal lymphatics, and hydrolyzes a plasma α_2 -globulin to form angiotensin I. The latter is ultimately converted to angiotensin II, which stimulates the adrenal cortex to release aldosterone.

Renin release is postulated to be related to (1) intrarenal baroreceptor effects, (2) macula densa detection of changes in sodium ion concentration, and (3) neurogenic activity, i.e., renal nerve stimulation, as well as other mechanisms. Measurement of PRA is done by rat bioassay (cumbersome, indirect) or radio-

immunoassay (reproducible only if important testing requisites are met; results with commercial kits are inconsistent).

Clinical applications of PRA measurement relate to hypertension with (1) *low-PRA* (primary aldosteronism, low-renin essential hypertension and some cases of adrenogenital syndrome, the Laidlaw-Peterson syndrome, and hypertension with bilateral nodular adrenal cortical hyperplasia) and (2) *high-PRA* (malignant hypertension, renal artery stenosis, intrinsic renal disease, contraceptive hypertension, and renin-secreting renal tumors).

*Kirkendall, W. M. and Overturf, M.: Plasma renin activity and systemic arterial hypertension. *Mod. Concepts Cardiovasc. Dis.* 42:47-52, October 1973.

This unique study utilizes pre and postoperative lumbar aortography to evaluate the beneficial effects of surgical correction of renovascular hypertension by measuring increase in renal size.

Aortography Before and After Surgical Correction of Renovascular Hypertension*

**Norman H. Smith, Ph.D., and
Nicholas J. Demos, M.D./Short Hills**

Renovascular hypertension has been described as a persistent, drug-resistant, surgically correctable condition, secondary to renal artery stenosis.^{1,2,3} Several techniques have been used to revascularize ischemic kidneys such as renal artery bypass using greater saphenous vein, hypogastric artery, cadaveric vessel, or dacron graft. Other surgical procedures mentioned include ipsilateral or contralateral nephrectomy endarterectomy, and end to end anastomosis after resection of circumscribed stenotic lesions.^{1,3-6}

The occurrence of unilateral or bilateral renal artery stenosis, coincident with persistent hypertension, does not guarantee a high degree of success with surgical treatment. Klatte³ points out that 15 of 31 cases treated by revascularization methods were failures. Among the variables which affect the prognosis are age, duration of hypertension, the tendency toward graft thrombosis, the extent of arteriosclerosis, and the existence of other generalized angiopathies.

In this paper, an approach is described in which renal artery stenosis is treated as a possible cause of systemic hypertension and renal ischemia, due to thrombus formation, with resulting loss of kidney function. In our practice, aggressive surgical treatment, in carefully selected patients, has successfully alleviated

hypertension, provided revascularization of ischemic kidneys, and forestalled the threat of thrombus formation at the site of the stenotic lesion. Among a large number of such cases we will discuss four cases in which both preoperative and postoperative lumbar aortograms were used to ascertain change in renal size. This is thought to be the first such use of lumbar aortograms reported, although similar kidney-size studies using intravenous pyelograms have been mentioned in the literature.³

Case One

A 55-year-old male, with a 20-year history of hypertension was hospitalized for the treatment of severe headache, having had numerous previous admissions. His blood pressure was 230/140 mm Hg. A lumbar aortogram (Figure 1-A) revealed bilateral renal artery



Figure 1-A—Case One—Preoperative lumbar aortogram showing bilateral stenosis of renal arteries, more significant on the right.

*From the Jersey City Medical Center, Christ Hospital, Jersey City, and CMDNJ, New Jersey Medical School, where Dr. Demos is Clinical Associate Professor of Surgery and Dr. Smith is a student in medicine. Study aided by the James Nicholas Surgical Research Fund.

stenosis, more significant on the right side. In April 1968, a right aortorenal bypass was performed through a midline abdominal incision using an 8 mm crimped dacron graft. A postoperative lumbar aortogram (Figure 1-B) showed no significant increase in vertical

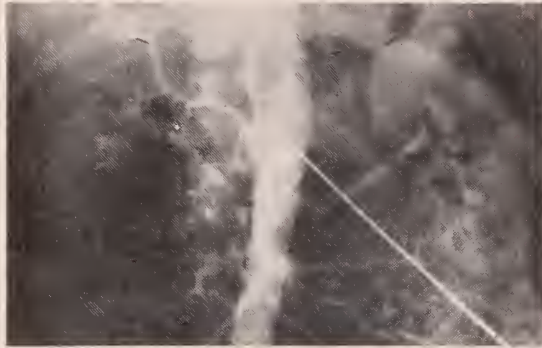


Figure 1-B—Case One—Postoperative lumbar aortogram showing aortorenal dacron bypass graft on right side.

length of the operated kidney. A one-year follow-up indicated that the patient's blood pressure ranged from 130/80 to 170/100 mm Hg, and after five years the diastolic pressure was 80 mm Hg with a combination tablet containing reserpine, hydralazine hydrochloride, and hydrochlorothiazide.

Case Two

Hypertension was found in a 43-year-old woman in a routine physical examination in February 1970. Selective renal arteriography revealed severe stenosis of the right renal artery due to fibromuscular dysplasia. (Figure 2-A) When the blood pressure was not adequately controlled by medical management, the patient was hospitalized for surgery. Physical examination revealed a blood pressure of 215/130 mm Hg and obesity. At operation, a right aortorenal bypass was constructed from a reversed segment of the right greater saphenous vein and implanted through a bilateral subcostal abdominal incision. A right renal wedge biopsy and a left renal needle biopsy were also performed.

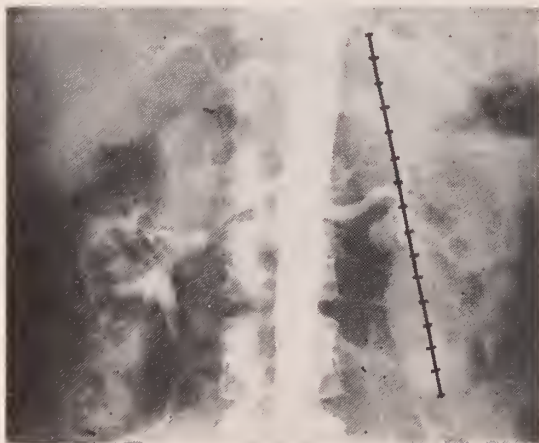


Figure 2-A—Case Two—Preoperative lumbar aortogram showing fibromuscular dysplasia of right renal artery. Note "string of beads" appearance. Scale in cm.



Figure 2-B—Case Two—Postoperative lumbar aortogram showing aortorenal bypass graft on right using saphenous vein.

The patient's recovery was uneventful. Both renal biopsies showed no pathological changes and the arterioles were normal. A postoperative lumbar aortogram (Figure 2-B) revealed a net gain of 0.9 cm in vertical length of the operated kidney. Her blood pressure has remained at 140/80 mm Hg since the operation.

Case Three

A 47-year-old man had a history of progressive, incapacitating, intermittent claudication in both lower extremities for two years and hypertension for one year prior to hospitalization.

Physical findings included blood pressure of 220/140 mm Hg, diminished femoral pulses with a palpable thrill, a bruit over the lower abdomen, and absent dorsalis pedis pulses. Arteriograms revealed severe stenosis of the left renal artery, a relatively small left kidney, narrowing of the distal abdominal aorta, severe narrowing of the iliac arteries, and occlusion of the right superficial femoral artery.

In May, 1972, the patient underwent a left aortorenal greater saphenous vein bypass, a bilateral aortofemoral dacron bypass, a right lumbar sympathectomy and a left renal biopsy. The patient made an uneventful recovery. The renal biopsy showed slight to moderate arterial and arteriolar nephrosclerosis.

A postoperative lumbar aortogram revealed that the operated kidney had an increase in vertical length of 2.6 cm. over the preoperative length. The patient's blood pressure remained 145/85 mm Hg with 0.25 mg of reserpine every other day. Claudication has been completely relieved.

Case Four

A 51-year-old woman hospitalized in May 1972 complained of severe bilateral frontoparietal headache and dizziness of three months' duration. A major physical finding was a blood pressure of 240/120 mm Hg. Medical treatment failed to control the hypertension. Selective renal arteriograms revealed 90 per cent stenosis of the left renal artery with small ipsilateral kidney. In June 1972, a split renal function test using retrograde ureteral catheterization was unsuccessful. Two weeks later, a left aortorenal bypass was performed through a midline abdominal incision using a reversed segment of left greater saphenous vein. Prior to im-

planting the bypass, bilateral renal vein blood samples were taken for plasma renin assay and needle biopsies were performed. Over the next few days, the blood pressure became normal and remained so.

Preoperative left renal venous plasma renin level was 850 units and 350 units on the nonstenotic side. (Normal renal vein plasma renin levels are up to 400.) Postoperatively renal vein renin levels were found to be 460 units. The kidney biopsies revealed normal parenchymal histology bilaterally. Postoperative lumbar aortograms showed a well-functioning left aortorenal bypass with a 2.0 cm increase in vertical length of the operated kidney.

Lumbar Aortography

The figures show selected pre-operative and post-operative lumbar aortograms for the four cases discussed. Figure 2-A shows a classic example of a right renal artery with the fibromuscular dysplasia type of stenosis showing the "string of beads" appearance. The fact that three of the four cases discussed here are of the arteriosclerotic type is in general agreement with the frequency cited by others.²

Patent, functional bypass grafts are evident in the postoperative lumbar aortograms in figures 1-B, 2-B, 3 and 4. The superior and inferior poles of each kidney are delineated, and a 15 cm scale is superimposed on figure 2-B for reference purposes.

Kidney Size

Lumbar aortography provides quantifiable information on the post-operative changes in kidney size. The net change in kidney size is computed by using the aortograms. In figure 1-A (case one) the maximum lengths of each kidney in the preoperative aortogram were measured as 10.0 cm for the ischemic kidney and 12.5 cm for the normal one. The post-operative aortogram (figure 1-B) shows the revascularized right kidney to measure 10.7 cm long while the left kidney was 13.0 cm. The non-operated kidney was used as a standard to eliminate any changes in magnification. The 0.5 cm change in the normal left kidney was subtracted from the gross change in length of the operated kidney of 0.7 cm yielding a net increase of 0.2 cm due to revascularization. This amount is not considered to be significant according to other investigators who recommend that differences of less than 0.5 cm be neglected.³

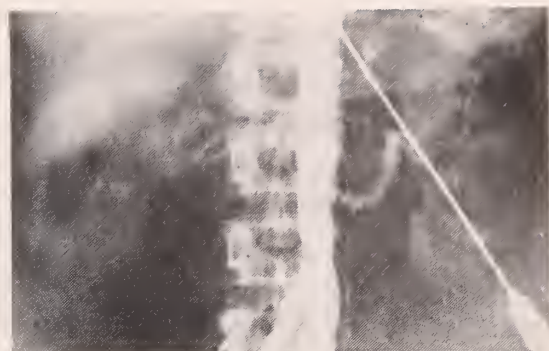


Figure 3—Case 3—Postoperative lumbar aortogram showing stenotic left renal artery and saphenous vein, aortorenal bypass graft.



Figure 4—Case 4—Postoperative lumbar aortogram showing stenotic left renal artery and saphenous vein, aortorenal bypass graft.

Revascularization of the ischemic kidney (case one) with long-standing hypertension resulted in little change in renal length, possibly due to irreversible changes in renal arteriolar anatomy, precluding a hyperemic "rebound" in size. Cases 2, 3, and 4, with shorter duration of hypertension, did show significant net increases in operated kidney size. The phenomenon of an immediate increase in kidney size, due to revascularization, was reported by Klatte,³ using intravenous pyelograms rather than lumbar aortograms. Despite the failure to increase the kidney size in case one, the hypertension was eliminated.

Discussion

In all four cases complete correction of hypertension has resulted from unilateral revascularization of an ischemic kidney by means of aortorenal bypass grafts. These results were achieved in the face of long-standing hyperten-

Table 1 Summary of Case Material

Case	Age	Sex	Duration of Hypertension	Type of Stenosis	Method of Revascularization	Net Increase in Operated Kidney After Surgery	Effect on Hypertension
1	55	M	20 years	Arterio-sclerosis	dacron	less than 0.5 cm	normal after 5 years
2	43	F	2 years	Fibromuscular Dysplasia	saphenous v.	0.9 cm	normal after 3 years
3	47	M	1 year	Arterio-sclerosis	saphenous v.	2.6 cm	normal after 1 year
4	51	F	6 months	Arterio-sclerosis	saphenous v.	2.0 cm	normal after 1 year

sion in case one and the need for additional major vascular surgery in case three. Successful relief of hypertension by bypass grafts has also been reported in pregnancy and advanced renal failure.^{4,5}

Because of the clinical problems involved, a search has gone on for appropriate diagnostic tests to select patients for surgical correction of renovascular hypertension. Honari² and Klatte³ believe that pre-operative urography offers the best chance for detecting surgically curable hypertension.^{2,3} Renal vein renin assay has also been suggested as an indicator of renovascular hypertension.^{1,2} However, other disease states, such as pyelonephritis, may cause renin elevation.² Furthermore, a paradoxical elevation in the normal or contralateral kidney in a case of unilateral renal artery stenosis is reported by McAllister.⁷ In this case the long standing effect of hypertension on the "exposed" side caused irreversible renal arteriolopathy and hypertrophy of the juxtaglomerular cells, which resulted in the renin elevation on the non-stenotic side. Despite these limitations, Dixon⁸ and others suggested that renin assay may be used as a reliable method of following the postoperative course of revascularization and that prognosis will be favorable if the renin level falls to normal within five days of surgery. This was noted in our case four which was the patient with renin assay data.

Summary

A discussion of four cases is presented in

which surgical correction of renal artery stenosis has successfully relieved renovascular hypertension and forestalled the potential loss of kidney function. Greater saphenous vein bypass autograft was used in three cases and crimped dacron in one case. Treatment was aided by the use of lumbar aortograms, which allowed accurate preoperative visualization of the stenotic lesions, collateralization resulting from blockage of major blood vessels, and postoperative increase in kidney size due to revascularization of ischemic kidneys. The latter phenomenon correlated with the duration of the hypertension, in the manner described by other investigators.

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4 Cambridge Drive

The use of the membrane oxygenator is suggested as a means of prolonged cardiopulmonary support in open heart surgery and acute severe pulmonary insufficiency. The authors discuss their experiences with the device and the problems associated with it.

Practical Uses of the Membrane Oxygenator*

**Joyce Rocko, M.D., Wm. Bernhard, M.D.,
and J. J. Timmes, M.D./Jersey City**

The membrane oxygenator is a clinical modality which can provide prolonged cardiopulmonary support for patients undergoing open heart surgery, or for those who are critically ill with potentially reversible pulmonary insufficiency. The advantages of the membrane oxygenator, over other oxygenators in use, are that it is essentially more physiological and there is less destruction of blood. The destruction of the formed elements of the blood is a major factor in limiting the amount of time that one can use cardiopulmonary bypass. This destruction occurs primarily in the oxygenator and in the cardiotomy suction system. With the use of bubble or disc oxygenators the blood comes in direct contact with the oxygen and some destruction occurs at the blood-gas interface. With the use of membranes separating the blood and the oxygen gas the amount of blood damage can be diminished. It is the purpose of this paper to present our clinical experiences with two types of membrane oxygenators and the problems which they have presented, together with some solutions.

There are several types of membrane oxygenators available. Our experience is limited to the Landé-Edwards oxygenator (with which we have had our initial experiences) and the Travenol oxygenator which we are using at the present time, including clinical trials with new models. The Landé-Edwards oxygenator has been adequately described in

the medical literature.¹ The Travenol oxygenator can be used as packaged, while the Landé-Edwards oxygenator requires a thorough rinsing, or wash-out, prior to use. The Travenol oxygenator is a rectangular package containing a set of envelopes of reinforced silicone rubber membranes. An open mesh of nylon screen is used to keep the membrane surfaces apart. Separate compartments for blood and for oxygen are created with molded inlet and outlet ports at opposite ends.

At the Jersey City Medical Center we have been routinely using membrane oxygenators in open heart surgery and we have begun using this modality for prolonged ventilatory support in those patients in whom the respiratory insufficiency is critical, but thought to be reversible. However, in patients who are to undergo extracorporeal circulation for two hours or less there is no particular advantage. In those patients in whom prolonged cardiopulmonary bypass is necessary, the membrane oxygenator has certain advantages. We must point out, however, that it does not eliminate the use of intracardiac suction which is one of the major causes of blood destruction in extracorporeal circulation. In bypass operations for coronary artery disease, without coronary suction, the oxygenator permits one to have unlimited time for the operative procedure. When the membrane oxy-

*This work is from the New Jersey Medical College, CMDNJ, and the Jersey City Medical Center.

¹ Landé, E., Edwards, R., et al, *Transactions, Am. Soc. Artif. Int. Organs*, 16:352 (1970)

generator is used for ventilatory support over many hours, it is obviously the only form of extracorporeal circulation that is available or possible.

Case Report

A four-year-old male was admitted to the Jersey City Medical Center in a comatose condition with muscle flaccidity and areflexia. The patient promptly went into respiratory arrest which was treated by tracheal intubation and the use of a mechanical ventilator. With the use of the ventilator, blood gas studies revealed a pH 7.46, pO_2 32 mm Hg. and a pCO_2 28 mm Hg. The history was totally unreliable, though, apparently, the night prior to admission, the patient had a temperature of 103° F. and the parents applied three bottles of isopropyl alcohol over his skin. A chest x-ray showed pneumonic infiltrations of the right upper and the left lower lung fields. The patient did not regain consciousness and required the use of 100 per cent oxygen for seven days and seventeen hours. Because of the dangers of oxygen intoxication with 100 per cent oxygen and the presence of bilateral pulmonary infiltrates with pneumothorax and the lack of improvement with mechanical ventilation, it was elected to place the patient on prolonged membrane oxygenation with the concept that the pulmonary condition might be reversible.

In preparation for membrane oxygenation by a partial cardiopulmonary bypass, diuretics, packed red blood cells, sedation, and cooling were instituted. The child was heparinized and cardiopulmonary bypass instituted using the femoral artery and femoral vein. The path of the artificial circulation was from femoral vein to venous reservoir, to heat exchanger, to membrane oxygenator, to arterial reservoir, to pump, and into the femoral artery. While the patient was on cardiopulmonary bypass, he was also maintained on mechanical ventilation with PEEP. Eventually the pO_2 rose to 228 mm Hg. on 70 per cent oxygen. However, in spite of the administration of large doses of sodium bicarbonate the pH remained low at 7.1. After thirty-three hours of extracorporeal circulation the electrocardiogram showed conduction defects, widening QRS complexes, and idioventricular rhythm; and the patient died. Autopsy revealed massive bronchopneumonia bilaterally.

Membrane oxygenators can be used successfully for open-heart surgery as well as for prolonged ventilatory support. At the present time the membrane oxygenator is the only method that can be used for prolonged cardiopulmonary assistance. In open heart surgery the membrane oxygenator functions extremely well, and is useful for prolonged procedures. However, for open heart surgery lasting two hours or less the advantages are

minimal and its major disadvantage is financial.

For prolonged-cardiopulmonary support the membrane oxygenator can be used successfully, however, our experience has demonstrated some of the attendant problems. The apparatus must be assembled on an emergency basis and it requires personnel adequate to maintain and monitor the bypass. As the procedure will last more than twenty-four hours and may last several days, the fatigue and required replacement of personnel may become major problems. The procedure must be carried out in a special room, so as not to tie up an operating room for long periods. At the present time, we are utilizing a space in the Intensive Care Unit. This space must be set up as an operating room since it is a surgical procedure requiring sterile technique. Lastly, the expense is great; however, this may decrease with the present development of new oxygenators.

An inhalation therapy department, as well as an anesthesia department, must supply personnel for constant attendance as these patients are also on mechanical ventilation. The monitoring of vital functions such as EKG, EEG, and direct arterial and venous pressures, requires special nursing personnel. The resident staff in thoracic surgery is a tremendous asset.

Conclusion

The use of the membrane oxygenator in open heart surgery as well as in prolonged cardiopulmonary support for patients in cardiac shock or in acute severe pulmonary insufficiency is feasible. Because of the expense and the number of personnel required, its use is recommended for open heart surgical patients where cardiopulmonary bypass will be in excess of two hours, or for patients whose severe cardiac condition, or severe pulmonary insufficiency, may be reversed.

50 Baldwin Avenue



Spasm reactor?

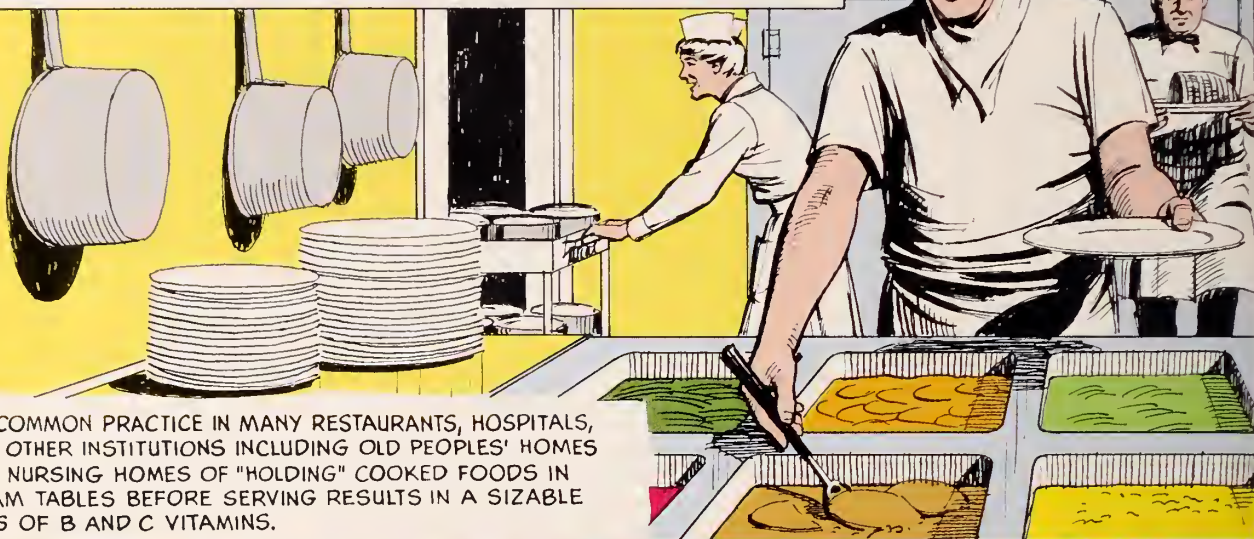
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hyoscine hydrobromide	0.0065 mg.	0.0065 mg.	0.0195 mg.
phenobarbital (warning: may be habit forming)	($\frac{1}{4}$ gr.) 16.2 mg.	($\frac{1}{2}$ gr.) 32.4 mg.	($\frac{3}{4}$ gr.) 48.6 mg.

Brief summary. Adverse Reactions: Blurring of vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur on higher dosage levels, rarely on usual dosage. Contraindications: Glaucoma; renal or hepatic disease; obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); or hypersensitivity to any of the ingredients.

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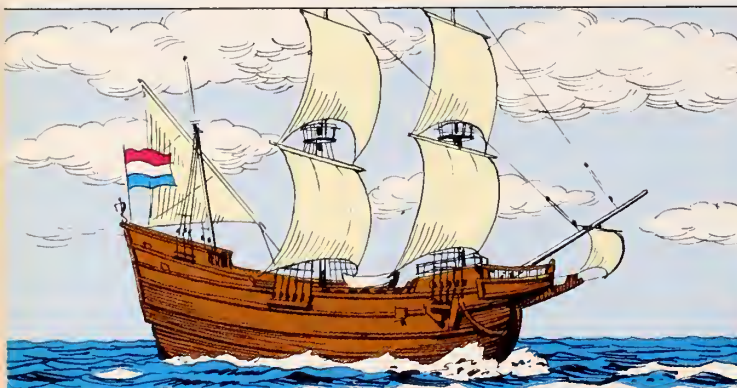
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TNS is a relatively simple, safe method of pain relief, which may be an alternative to conventional methods, operative intervention, or even acupuncture.

Pain Relief—Transcutaneous Nerve Stimulation

Arthur Winter, M.D., et al./East Orange*

The exact nature of pain and its detailed method of transmission is, as yet, unknown. Pain may be a useful symptom, but it requires treatment when it becomes severe and intractable. If the cause cannot be eliminated, then the symptoms may be relieved by medication, surgery, acupuncture, or the newer transcutaneous nerve stimulation.

Every method of treatment has its drawbacks. Non-narcotic oral medications can be tolerated over a short period of time, but take up to an hour for absorption and effect and may be associated with gastric upset and other intolerances. The use of narcotics may produce addiction. Acupuncture¹ requires special training, and may be complicated by infection or perforation of deeper structures. Surgery, for pain relief, requires hospitalization and anesthesia; permanent numbness, infection, and debilitation may result.

The transcutaneous stimulator (TNS), a device about the size of a television remote control, also has minor side effects, but it is simple to use and very effective in interrupting specific pain. The concept of electrocutaneous stimulation was first described by von Frey (1915) and Adrian (1919).

Methodology

The TNS is a pulsed current source device which is adjustable from 0-76 milliamps positive peak \pm 15 per cent, measured into a 500 OHM load. The voltage is limited to a maximum of 100 volts. When using the TNS—

Neuromod,^{TM7} certain precautions are indicated:

1. It is not to be used with patients employing the demand type cardiac pacemaker.
2. Isolated cases of skin irritation may occur at the site of the electrode, therefore the electrode should be washed after each use and the site should be changed. A disposable electrode[†] is suggested for the treatments lasting less than fifteen minutes.⁷

The stimulator is used in the following manner:

1. Start at zero and put on slowly to avoid unpleasant sensation until patient is gradually aware of it.
2. Increase to tolerable, painful level.
3. Always shut off when changing electrodes.
4. Increase pulse rate until comfortable.

Although the technique is simple, a basic knowledge of neuroanatomy is required for successful application of transcutaneous nerve stimulation.

The patient should be told that a buzzing sensation will be felt beneath the electrode, and that this will be increased to the point of

*Associate Attending in Neurological Surgery, The Hospital Center at Orange (NJ). Coauthors are Robin L. Winter and Yvonne J. Laing, R.N.

†Monitoring Electrode, Catalog #65375-010, American Hospital Supply, Evanston, Illinois, 60201.

just tolerable pain. The pulse rate is adjusted and increased until comfortable, as described by the patient. The TNS is applied directly to the painful area, and, if not effective, then over the peripheral nerves innervating this area.

The frequency of application will be determined by the patient. In severe intractable pain, constant stimulation may be needed. Some patients experience immediate relief of pain, while others require fifteen minutes. The duration of the effect will be variable, lasting up to seven days, some as long as the TNS was used.

Various factors tend to influence the results: (1) Skin resistance,^{8,9} (2) Location of electrodes, (3) Distance between electrodes, and (4) Tolerance level of patient.

Results and Discussion

The TNS was used in fifty-five patients with acute and chronic pain of various etiologies. These included radiculitis, arthritis, post-operative pain (thoracotomy, laminectomy), pain of malignancy, neuritis, herpes zoster, post-CVA pain, non-specific headache, and so on. Ages of the patients ranged from 10 to 68 years, with most in the middle years; both males and females were treated.

In general, the results of pain relief were good to excellent. In some cases, pain relief was immediate with residual periods of freedom up to seven days. The following case histories are illustrative.

Case Histories

Case One—A 23-year-old female, operating-room nurse complained of severe pain in the right frontal and anterior cervical area, after working a long period in the operating room. The diagnosis was cervical radiculitis. Application of TNS for five minutes over right frontal area and mid-portion of right trapezius gave relief in about two minutes, with a duration of effect for one hour. Repeat treatment two weeks later permitted total relief for twelve hours.

Case Two—A 53-year-old female had spastic right hemiplegia, intractable right shoulder and arm pain, multiple sclerosis, and carcinoma of the ovary with metastasis. With use of the TNS to right upper trapezius and anterior deltoid area, at 8 pulse per second and 6 milliamps for fifteen minutes, the patient

noted decrease of pain in shoulder and arm and started to flex the spastic fingers in her right hand for the first time in three years. Duration of effect persisted for two days. A total of six treatments in fourteen days seemed to hasten spontaneous movement, including flexion of her right arm.

Case Three—A 53-year-old male complained of severe left chest pain following thoracotomy for carcinoma. No evidence of local recurrence was found. Only 80 per cent relief of pain occurred after thoracic posterior rhizotomy. Use of TNS at 8 pulse per second and 6 milliamps for fifteen minutes over intercostal area of pain about 3 cm from spinal column produced total relief for three hours. On return of pain the severity was less.

Case Four—A 50-year-old female nurse had right hip pain following laminectomy for herniated disc, L5-S1. Application of TNS, 8 pulse per second and 6 milliamps to mid-lumbar at L4 and over right femoral, gave 75 per cent relief for thirty minutes with residual improvement.

The gate control theory of Wall and Melzack^{10, 11, 12} suggests that stimulation of large diameter fibers in cutaneous nerves may reduce pain. The substantia gelatinosa functions to modulate the somatic impulses to the brain. The large efferent cutaneous fibers activate the small cells in the substantia gelatinosa, which cause pre-synaptic depolarization of the afferent fibers of small and large caliber; this in turn activates the second order neuron. This theory, however, does not take into account the higher levels of influence from descending impulses from the brain.

Summary

Patients suffering from acute pain involving the neck, back, and lumbar region due to various causes, such as arthritis and carcinoma, were relieved with transcutaneous nerve stimulation when other methods failed. Experience with TNS in fifty-five patients showed good to excellent results in most cases. The procedure is quite simple, but requires a basic knowledge of neuroanatomy.

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Reprint requests to: Arthur Winter, M.D., 377 South Harrison Street, East Orange, New Jersey 07018.

Recommendation for Health Department Supervision of Tuberculosis Patients

(The following statement has been developed as the official position of the Center for Disease Control, based on the recommendations of the Tuberculosis Advisory Committee.)

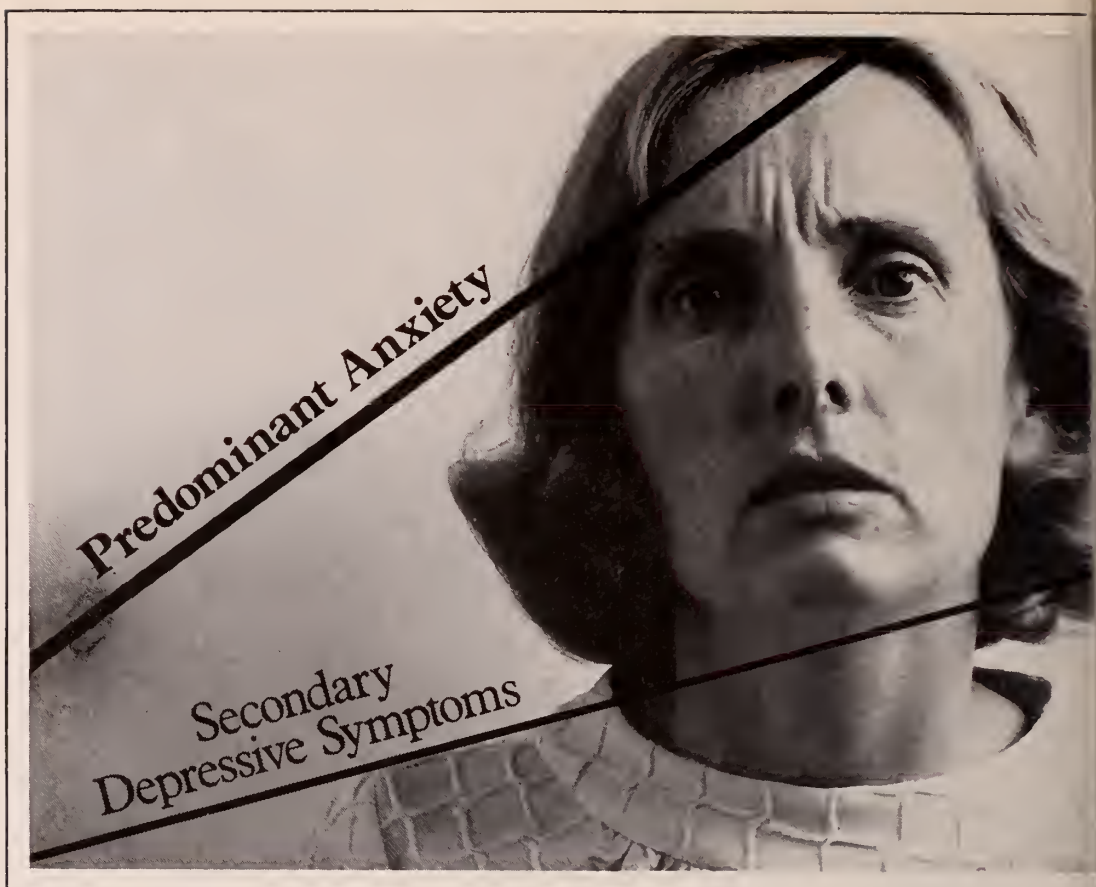
Tuberculosis patients who complete adequate chemotherapy should be considered cured. They have no need for routine lifetime periodic recall for x-ray or examination. Indeed, perpetuating lifetime follow-up of such treated patients diverts clinic personnel and resources from the crucial task of providing services for those who really need them.

Highest priority should be given to prompt and thorough treatment for newly diagnosed patients with tuberculosis. Medical supervision is most important during the early months of outpatient chemotherapy whether treatment begins at home or with a brief period of hospitalization. Patients known to have had tuberculosis without chemotherapy, who are still being followed, should receive preventive treatment. Contacts of patients with newly diagnosed tuberculosis and other high-risk infected persons should be sought and should receive preventive treatment.

Persons who have responded well to treatment and have completed the recommended course of therapy should be told to expect

their recovery to be permanent. The diagnosis of treated tuberculosis becomes part of their medical history. These persons should be discharged with instructions not to return unless they develop symptoms that could be caused by tuberculosis, such as a cough of longer than two weeks' duration, significant weight loss, persistent fever, or prolonged respiratory infection. Persons who have completed preventive therapy should also be discharged with similar instructions to return if they develop symptoms.

If a patient has not responded well to drugs or has had an irregular course of treatment, efforts should be made to complete adequate therapy. Special treatment programs, such as directly administered ambulatory therapy, should be considered for such patients. Continuing periodic chest roentgenograms and bacteriologic examinations should be considered only for persons in whom all attempts at therapy have failed. If such persons are in occupations where infectiousness may have serious consequences (such as some school and hospital personnel) they should be examined more than once a year or, if feasible, transferred to areas where there are minimal consequences to contacts if the person becomes infectious.



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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive dis-

orders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant

medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

When you determine that the depressive symptoms are associated with or secondary to predominant anxiety in the psychoneurotic patient, consider Valium (diazepam) in addition to reassurance and counseling, for the psychotherapeutic support it provides. As anxiety is relieved, the depressive symptoms referable to it are also often relieved or reduced.

The beneficial effect of Valium is usually pronounced and rapid. Improvement generally becomes evident within a few days, although

some patients may require a longer period. Moreover, Valium (diazepam) is generally well tolerated. Side effects most commonly reported are drowsiness, ataxia and fatigue. Caution your patients against engaging in hazardous occupations or driving.

Frequently, the patient's symptoms are greatly intensified at bedtime. In such situations, Valium offers an additional advantage: adding an *h.s.* dose to the *b.i.d.* or *t.i.d.* schedule can relieve the anxiety and thus may encourage a more restful night's sleep.

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Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal

or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred

vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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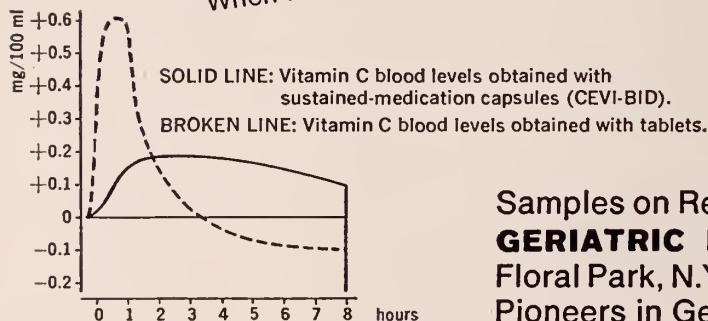
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¹ Riccitelli, M. L.: Vitamin C Therapy in Geriatric Practice, J. Amer. Geriatrics Soc. 20: 34, 1972.

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Adenocarcinoma, a rare disease of the appendix, may present as appendicitis or be an incidental finding at surgery.

Primary Adenocarcinoma of the Vermiform Appendix*

Joan F. Tryzelaar, M.D. and
James J. Chandler, M.D./Princeton

Two patients with primary adenocarcinoma of the vermiform appendix were recently treated at The Medical Center at Princeton. Less than 200 cases have previously been reported.³

This cancer has a clinical picture that ranges from "incidental finding" to that of acute appendicitis or abdominal mass and fistulas. Metastasis occurs by local invasion, by lymphatic spread, and by the bloodstream.⁶ Incidence ranges from 0.01 per cent to 0.05 per cent and age ranges from 17 to 84 years, with most occurrences in the fifth and sixth decades.^{3,5,6} Both sexes are equally affected.³

Case One

An 81-year-old man was admitted with a warm, tender, red mass in the right posterior flank above the iliac crest. *Laboratory:* white blood count, 31,700; Hgb. 12.3 grams per 100 ml.; BUN 28 mg. per 100 ml. *Clinical diagnosis:* Anemia; abscess of the right lower abdomen, possibly secondary to a perforating cancer or diverticulitis of the ascending colon.

The abscess was incised and drained. Barium enema revealed a cecal mass (figure 1). Sinus tract injection demonstrated the opaque material to circle posteriorly to the right flank at a point above and below the iliac crest, occupying a retrocecal position (figure 2). Liver scan was normal.

At operation, the appendix was found to be perforated. A sinus tract had formed and presented as the subcutaneous abscess. Frozen section of a small incisional biopsy of the appendix was positive for cancer. In view of the patient's age, general condition, and the presumption that cancer cells had disseminated throughout the abscess cavity and sinus tract, the appendix was simply removed along with a generous cuff of cecum. The cecum was closed primarily and the area drained. The patient made a slow recovery, and was well eight months after operation.



Figure 1—Barium enema demonstrates cecal filling defect. Posterior-anterior view

Pathology†: The appendix measured 6 cm. in length and 1.8 cm. in diameter. The serosa was diffusely thickened and congested. On section, the major portion of the appendiceal mucosa was replaced by a fungating red-tan neoplasm with a coarsely granular and papillary surface that involved the full circumference of the dilated lumen. The tumor infiltrated into the muscularis, but did not extend into the

*From the Departments of Surgery, CMDNJ-Rutgers Medical School and The Medical Center at Princeton. Dr. Tryzelaar, formerly surgical intern at Princeton, is a resident in surgery at New England Deaconess Hospital in Boston. Dr. Chandler is Chairman, Department of Surgery, The Medical Center at Princeton, and Clinical Associate Professor of Surgery, CMDNJ-Rutgers Medical School. Reprint requests to Dr. Chandler, 253 Witherspoon Street, Princeton, New Jersey 08540.

†Ilana Pachter, M.D. reviewed the surgical specimens

serosal surface. The cecal mucosa and the short length of proximal appendiceal mucosa were free of tumor.



Figure 2—Right flank sinus tract injection, posterior-anterior projection. Sinus tract leads to the retrocecal appendix.

Diagnosis: Well-differentiated primary adenocarcinoma of the vermiform appendix, extending into the mucosa and muscularis. Perforation of the distal appendix.

Case Two

An 84-year-old woman was admitted with abdominal distention, nausea, and vomiting. Barium enema revealed complete obstruction of the splenic flexure. *Clinic diagnosis:* Obstructing carcinoma of the transverse colon. To relieve the obstruction, a cecostomy was done through the base of the appendix.

The pathological specimen was a distended appendix, measuring 7.5 cm. in length and 1.5 cm. in diameter. The mucosa was markedly thickened, and showed a well-differentiated, mucus-producing adenocarcinoma of the appendix, which was completely confined to the mucosa.

Discussion

Adenocarcinoma of the appendix resembles that commonly seen in the colon, varying from poorly-differentiated to well-differentiated, more papillary, mucus-producing tumors.⁷ Melcher classifies non-carcinoid tumors of the appendix as follows: (1) mucocoele, (2) cystadenoma, and (3) adenocarcinoma, cystadenoma and adenocarcinoma are similar ex-

cept that the former does not infiltrate the appendiceal wall.⁴

Collins examined 71,000 appendices acquired from autopsy and surgery, and found 57 "colonic" type adenocarcinomas.² The series of Steinberg and Cohn included 15,000 surgical specimens with only two "true" primary adenocarcinomas.⁶ Flint collected 12 cases in a fifteen year period.³

Treatment ranged from simple appendectomy to right colectomy. The result after right colectomy was better, whether for invasive or non-invasive cancer. In Flint's series of five patients having no clinical metastases at the time of their operation, two were treated by appendectomy alone. Both died within the next four years with generalized intra-abdominal and bony metastases. Three patients had right colectomy, and they were alive at three, five, and ten years, respectively.³

Interestingly, Melcher⁴ described one patient who had his appendix plus a surrounding tumor mass removed and who was alive and well fourteen years after the operation. Flint³ reported palliative treatment of metastatic disease with radiotherapy and fluorouracil chemotherapy for one patient, who died without significant improvement.

Summary

Adenocarcinoma of the appendix is a rare disease. Most of these cancers are found incidentally or because of symptoms of acute appendicitis. Recommended treatment is right colectomy for those patients without known metastasis.

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Medical Center at Princeton

Methods for Determining the Amount of Glucose in Blood*

Achieving a successful and usable measurement of glucose in blood depends upon proper collection of the sample, use of a reliable analytical method, and appropriate calibration of the analysis. Accurate interpretation of the analytical results depends on the availability of correct normal values and reliable points of reference. Glucose in the sample can easily be lost by the action of enzymes in the red blood cells, contamination by bacteria, and unsuitable storage conditions. The method selected for the analytical determination must provide appropriate accuracy and precision for the intended use of the result. Normal values specific for the laboratory must be available for interpretation.

The glucose oxidase, hexokinase, *o*-toluidine, and ferricyanide methods are currently more widely used. The Somogyi-Nelson method is used less frequently now because it is more laborious to perform. All of these methods have been found satisfactory for most purposes in the clinical laboratory, as long as an effective quality control system is used with the method. Many commercial instrument and diagnostic reagent systems are being used, and the laboratory director is responsible for determining that the selected diagnostic reagent system is suitable for its intended use. The Folin-Wu and Benedict methods are out of date. At present, the glucose oxidase and the hexokinase methods are equal first choices as the reference method; the direct *o*-toluidine is the method of choice for manual routine purposes; and the AutoAnalyzer ferricyanide method is selected as the automated method for routine use because of its economy and ease of operation. The automated enzyme and *o*-toluidine methods are becoming more widely used and eventually

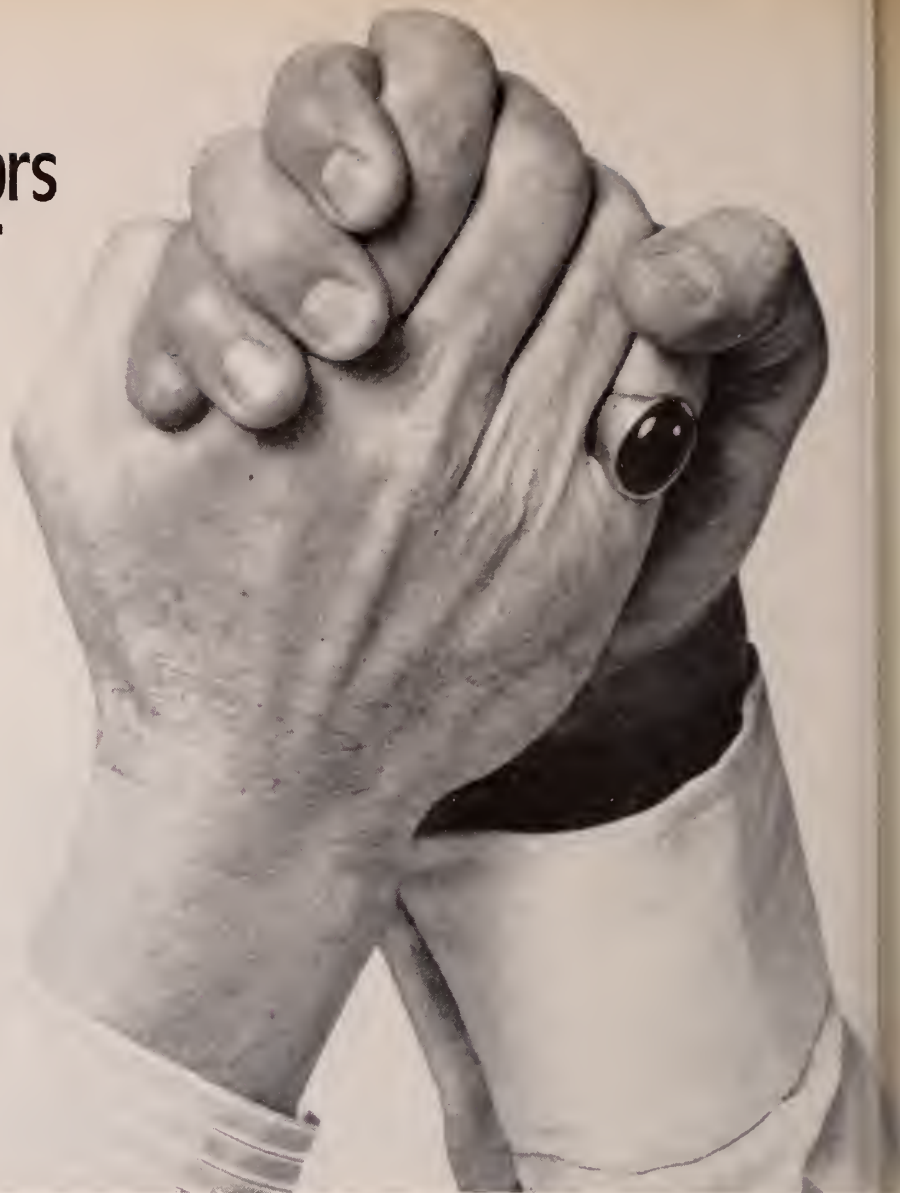
will probably be first choices for automated methods. High grade, pure commercial preparations of glucose are useable standards and can be checked against a reference standard obtained from the National Bureau of Standards. Most of the methods used in the clinical laboratory possess a potential precision equal to a standard deviation of approximately 3 mg/dl in the normal range of values.

The outstanding factors for quality performance of these glucose methods appear to be (1) effective use of standards, serum reference materials, and quality control; (2) careful and precise measurement of sample, reagents, and developed color; (3) use of dependable equipment; (4) experience with and knowledge about the selected method; (5) use of a well-defined protocol; (6) understanding of interferences and their limitation of the quality of results; (7) recognition of conditions that cause error; (8) well-motivated, conscientious, careful, and observant personnel.

Precautions must be taken to prevent errors in sample identification and in reporting results. Comparability and attainable precision of results among all methods is greatly increased by the use of samples of plasma or serum rather than whole blood. Each method produces a characteristic level of values and, at present, under optimum conditions, values obtained by these glucose methods quite closely approach true glucose values in the normal range; they deviate more, however, from true glucose values in the abnormal range.

*Cooper, G. R. and Young, D. S.: *CRC Critical Reviews in Clin. Lab. Sci.*, August 1973.

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Final classification of the less-than-effective indications requires further investigation.

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Adverse Reactions: On rare occasions, oral administration of the drug has been associated in time with the occurrence of severe rash. When rash appears, the drug should be discontinued. Occasional overdosage effects such as transient palpitation or dizziness are usually controlled by reducing the dose.

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Laparotomy or percutaneous biopsy of the peritoneum would appear to be a reliable means for establishing a definitive diagnosis in patients with ascites in whom tuberculous peritonitis is a possibility.

Ascitic Fluid in Tuberculosis and Heart Failure

Purnendu Sen, M.D., et al./Newark*

A diagnosis of tuberculous peritonitis is frequently difficult to establish, often being confused with hepatoma, carcinomatosis, and cirrhosis.^{1,2} Great reliance is placed on the results of ascitic fluid analysis in differentiating among these entities.^{1,3} The following case reports demonstrate that the differential white cell response and protein concentration of ascitic fluid patients with tuberculous peritonitis and congestive heart failure can be confusing.

Case One

A 32-year-old female was admitted complaining of nausea, vomiting, and fever of one week's duration. She denied abdominal pain, weight loss, and night sweats. Admission temperature was 102. She was moderately jaundiced and her abdomen was slightly distended, but no fluid was detected. The remainder of the physical examination was within normal limits. The patient's past and personal histories were non-contributory and she was unaware of any exposure to tuberculosis.

Laboratory studies included a hematocrit of 33 per cent, white blood cell count 8000/mm³ with a differential count of 78 per cent neutrophils, 21 per cent lymphocytes, and 1 per cent eosinophils, and platelet count 120,000/mm³.

Urine analysis, serum electrolytes, blood urea nitrogen, creatinine, cholesterol, and amylase were normal. Chest x-ray, abdominal flat plate, and electrocardiogram were normal. An intermediate and second strength tuberculin (purified protein derivative) and fungal skin tests were negative. Liver function studies revealed a bilirubin of 5.0 mg/100 ml, serum glutamic oxaloacetic transaminase 116 units, serum glutamic pyruvic transaminase 85 units and lactic dehydrogenase 520 units. Serum protein electrophoresis showed a decreased albumin (31.3 per cent) and an elevated gamma globulin (36 per cent). Repeated blood and urine cultures were sterile.

Two weeks after admission, ascites was noted. Paracentesis yielded 200 ml of a yellow fluid with a protein

concentration of 4.8 gm/100 cc, a sugar of 30 mg/100 cc (blood sugar 108 mg/100 cc), and 2400 cells/mm³ of which 75 per cent were polymorphonuclear leukocytes and 25 per cent lymphocytes. Gram and Ziehl-Neelsen stains of the ascitic fluid were negative as were cultures for bacteria (aerobic and anaerobic), *Mycobacterium tuberculosis* and fungi. Cytology studies also were negative. Liver scan revealed an enlarged liver with irregular perfusion, compatible with cirrhosis. Liver biopsy indicated advanced cirrhosis and cultures of this tissue were negative. Two weeks later, another paracentesis was performed together with liver and peritoneal biopsies. Examination of the ascitic fluid revealed a protein concentration of 5 gm/100 ml and 2100 cells/mm³, 90 per cent of which were mononuclear. Cultures of the ascitic fluid were again negative and the liver biopsy was interpreted as cirrhosis. However, a histologic diagnosis of granulomatous tuberculous peritonitis was made on peritoneal biopsy, and a positive culture for *M. tuberculosis* was obtained from the biopsy material. The patient responded well to appropriate antimicrobial therapy.

Case Two

A 42-year-old man was hospitalized with a complaint of dizzy spells of two months' duration. He denied any pulmonary, gastrointestinal, or genitourinary symptoms. There was no history of fever, night sweats, weight loss, alcoholism, or exposure to patients ill with tuberculosis. Physical examination revealed dullness and decreased breath sounds at the left lower lung base and a slightly distended abdomen with normal bowel sounds and no fluid wave or shifting dullness. The liver and spleen were not palpable. The patient's hematocrit was 27 per cent and the peripheral white blood cell count was 6,700/mm³ with a differential count of 85 per cent neutrophils, 14 per cent lymphocytes and 1 per cent monocytes. Urine analysis, electrolytes, blood urea nitrogen, creatinine, amylase, and liver function studies were within normal limits. A serum protein electrophoresis showed a decreased albumin (43.3 per cent) and an increased gamma globulin (27.5 per cent). Chest x-ray revealed bilateral apical infiltrates with a left-sided pleural effusion. An intermediate strength tuberculin skin test was positive, but several sputum smears

*Coauthors are Donald B. Louria, M.D., Nicholas J. Vianna, M.D., and Flor Tecson, M.D. This work is from the Departments of Medicine and Preventive Medicine and Community Health, New Jersey Medical School, CMDNJ, Newark. Send reprint requests to the Department of Preventive Medicine, 100 Bergen Street, Newark, New Jersey 07103 (Dr. Louria)

and cultures were negative for *M. tuberculosis*. Blood and urine cultures were sterile and 3 sputum specimens for cytology were interpreted as class 1-2. The patient's rectal temperature ranged from 99°F. to 101°F. One week after admission, he complained of abdominal distension, shifting dullness was detected, and a paracentesis and percutaneous peritoneal biopsy were performed. Studies of the yellow ascitic fluid revealed a protein concentration of 5.6 gm/100 ml, a normal sugar and 3000 white blood cells/mm³ with a differential count of 75 per cent polymorphonuclear leukocytes and 25 per cent lymphocytes. Smears and cultures for bacteria (including *M. tuberculosis*) and fungi were negative and cytology studies were normal. However, the peritoneal biopsy specimen was studded with tubercles and caseating granulomas. Liver scan revealed normal-size with irregular perfusion in the left lobe. The patient gradually improved on anti-tuberculous therapy.

Case Three

A 50-year-old man was hospitalized with a chief complaint of dyspnea on exertion and increased abdominal girth of five months' duration. He had a past history of congestive heart failure thought to be due to alcoholic cardiomyopathy. On physical examination there was evidence of severe congestive heart failure. Intermediate and second strength tuberculin tests were negative. Liver scan revealed hepatomegaly with abnormal perfusion diffusely. A serum protein electrophoresis was normal. Paracentesis revealed 200 ml yellow fluid with a normal sugar, protein of 3.4 gm/100 ml and a white cell count of 1500/mm³ with a differential count of 67 per cent polymorphonuclear leukocytes and 33 per cent lymphocytes. Smears and cultures for bacteria and fungi in routine and hypertonic media were negative as were cytology studies. A repeat paracentesis revealed a normal sugar, protein 3.2 gm/100 ml, 200 white blood cells/mm³ with 65 per cent lymphocytes, and negative cultures and cytology. The patient died suddenly after 30 days of hospitalization. Autopsy findings indicated cardiomyopathy with pulmonary edema and multiple pulmonary emboli, chronic passive congestion of the liver and ascites. Post mortem cultures were all negative. Thus there were no evidences of tuberculosis or any other peritoneal infection.

Tuberculous peritonitis can present in a variety of fashions—typically with fever, night sweats, weight loss, increasing abdominal girth, and a positive tuberculin skin test;^{3,4} less typically acutely or subacutely in a tuberculin negative patient with or without fever;⁴ or as unexplained fever in the cirrhotic. It is frequently confused with other entities causing ascites, particularly if the chest x-ray is normal.^{2,3,5} In one study, 5 out of 31 patients with tuberculous peritonitis were initially considered to have this disease. The others were often thought to have ascites due to cirrhosis, hepatoma, or carcinoma. Tuberculous and neoplastic peritonitis can be confused clinically, since both are frequently accompanied by abdominal pain, fever, generalized weakness, weight loss, hepatomegaly,

and ascites. Furthermore, class 4-5 cells, strongly suggestive of malignancy have been observed on cytologic examination of the ascitic fluid of patients with tuberculous peritonitis.² Although the presence of abdominal pain, fever, and abdominal tenderness are helpful in distinguishing tuberculosis from cirrhosis³, these findings are not invariably present in the former⁸ and certainly fever may occur in the latter. Furthermore, patients with alcoholic cirrhosis may develop spontaneous bacterial peritonitis that may have either a rapid or an indolent course. Tuberculous peritonitis may also be confused with acute bacterial peritonitis when the tuberculous involvement is characterized by a rapid onset of abdominal pain, ascites, true rigors, fever, and a persistently negative tuberculin skin test.⁴

Several studies have stressed that lymphocytes constitute 70 per cent or more of the cellular elements found in the ascitic fluid of patients with tuberculous peritonitis and that a polymorphonuclear leukocytosis is the rule for nontuberculous bacterial fluids.^{3,6,7} These and other studies have also emphasized that protein values of greater than 2.5 gm/100 ml ascitic fluid are helpful in differentiating tuberculosis and other causes of exudative ascites from ascites due to cirrhosis and congestive heart failure.^{1,3,6} The results of the ascitic fluid studies of the cases presented suggest that the differential white cell count may be of limited value in the individual case, especially early in the course of the disease (Case 1 and 2) when a polymorphonuclear leukocytosis may predominate in the tuberculous patient. The transition from an early neutrophilic response to primarily mononuclear cells (as observed in Case 1) has also been demonstrated in cases of tuberculous pericarditis with effusion.⁹ These observations suggest that the earliest response to tuberculous involvement of serous membranes is neutrophilic. Furthermore, the protein content of transudates tends to rise with reabsorption whereas that of exudates may vary but usually decreases.⁷ It is therefore possible for diseases usually associated with an ascitic transudate to have the protein content of an exudate

(e.g., case three.) Equally interesting is the finding of a predominantly polymorphonuclear cell response in ascites consequent to congestive heart failure. Why this should occur is unclear. Possibly a covert infection was present, but in our case no infection could be detected, even with use of highly enriched, hypertonic media. Clearly, single observations of ascitic white cell count and protein must be interpreted with caution. The duration of illness, often difficult to determine, thus becomes an important consideration in evaluating single white cell counts and protein values of ascitic fluid.

Considering the high morbidity and mortality associated with untreated tuberculous peritonitis, it would seem reasonable to perform a laparotomy or, when not contraindicated, a percutaneous biopsy of the peritoneum for histopathologic diagnosis on all patients with

ascites in whom this disease is a possibility and in whom other conventional studies do not establish a definitive diagnosis.

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100 Bergen Street

Rocky Mountain Spotted Fever Now More Common in the East

Rocky Mountain spotted fever, a serious illness transmitted by ticks, is misnamed. There are very few cases any longer in the Rockies, but the disease is increasing in the eastern United States.

An article in a current issue of *Archives of Internal Medicine* urges physicians in the eastern states and the mid-south to be alert to possible cases of this disease.

A study of 42 patients with Rocky Mountain spotted fever hospitalized in Memphis, Tennessee, over a six-year period revealed the correct diagnosis often was missed initially and an average delay of ten and a half days occurred between the beginnings of symptoms and the start of proper treatment. First symptoms usually are a rash and fever which can easily be mistaken for some other illness. The patients also often had disturbances of the

central nervous system and blood abnormalities. Death rate was high among those with blood problems.

The disease first came to attention a century ago, when residents of Snake River Valley of Idaho recognized a form of "black measles." Subsequent studies identified the disease, determined that it is transmitted by ticks, and established the name of Rocky Mountain spotted fever.

Although the disease attacks all ages, it is primarily a problem of childhood. In the Memphis study, the age range was 4 to 55 years, but 35 of the 42 patients were below 16 years. With one exception all cases occurred between the months of April and August. The American dog tick is the most important means of transmission of the disease in the eastern United States.

The utilization of computer potential in the evaluation of blood gas studies by the authors is another example of progress in health care through biomedical engineering.

Computer Program for the Evaluation of Laboratory Acid-Base Results

**Shirish Shastri, Ph.D., Michael Bright,
and Edward Wagman, M.D./Paramus***

An online computer program has been developed for the calculation of base excess, actual bicarbonate, and standard bicarbonate utilizing the assayed values of blood pH, $p\text{CO}_2$, and total CO_2 . Blood pH and $p\text{CO}_2$ are measured by utilizing direct reading electrodes incorporated in two different blood gas instruments (IL 113 and Radiometer BMS 2). Total CO_2 is measured with a Natelson Microgasometer. These measured values are used as required data for calculating base excess, actual bicarbonate, and standard bicarbonate. The pH, $p\text{CO}_2$ and total CO_2 are designated as high, normal, or low in comparison with the accepted normal ranges for these parameters. This designation for each parameter is used for computer evaluation of acid-base disturbances based on laboratory findings. Base excess, actual bicarbonate, and standard bicarbonate are calculated with the aid of a PDP-12, Digital Equipment Corporation computer.

Discrepancies exist between the measured quantities of total CO_2 commonly calculated using a nomogram due to the fact that a patient's pK may not be a constant 6.1, as stated in the Henderson-Hasselbach equation and used in the acid-base nomogram.¹ It seems more appropriate to provide mathematical equations which utilize the assayed values of pH, $p\text{CO}_2$, and total CO_2 and to

calculate the base excess, actual bicarbonate, and standard bicarbonate. Previous acid-base computer programs have used different parameters and equations.^{2,3}

Materials and Methods

The computer program was written to carry out acid-base calculations on a PDP-12, Digital Equipment Corporation Computer, which is used in the laboratory in an online, time-sharing mode. The base excess, actual bicarbonate, and standard bicarbonate are calculated using the pH, $p\text{CO}_2$, and total CO_2 (CO_2T) values. The mathematical equations used for the calculation are shown in the following description.

Base excess: Base excess is computed by means of the following equation: $\text{BE} = F (\text{pH}, \text{CO}_2\text{T})$ (1)

The Taylor series approximation around a point ($\text{pH}_0, \text{CO}_2\text{T}_0$) using the first three

terms is $\text{BE} = F (\text{pH}_0, \text{CO}_2\text{T}_0) + \frac{\partial F}{\partial \text{pH}}$

$$(\text{pH} - \text{pH}_0) + \frac{\partial F}{\partial \text{CO}_2\text{T}} (\text{CO}_2\text{T} - \text{CO}_2\text{T}_0) \quad (2)$$

where $\frac{\partial F}{\partial \text{pH}}$ and $\frac{\partial F}{\partial \text{CO}_2\text{T}}$ are the partial derivatives of the function of equation (1).

*From the Department of Laboratories, Bergen Pines County Hospital, Paramus. Dr. Wagman is director of that department. Dr. Shastri is a biomedical engineer, and Mr. Bright is chief chemist.

Table 1

Acid-Base Balance—The Classification of Data^a

pH	pCO ₂	Total CO ₂	Classification
Normal	Normal	Normal	Normal
High	Normal or High	High	Metabolic Alkalosis
High	Low	Normal	Metabolic Alkalosis + Respiratory Alkalosis
High	Low	Low	Respiratory Alkalosis
Normal	High	High	Compensated Acidosis or Alkalosis
Normal	Low	Low	Compensated Acidosis or Alkalosis
Low	Low	Low	Metabolic Acidosis
Low	Normal or High	Normal	Unsuspected Acidosis
Low	High	High	Respiratory Acidosis

^aThe table is compiled from Gambino, S. R., *The Clinical Value of Routine Venous Acid-base Studies*, Author's note (permission of the author) and (4).

A linear approximation of the relationships between BE and pH, and BE and CO₂T results in partial derivatives as constants in equation (2) which gives $BE = K_0 + K_1 (pH - pH_0) + K_2 (CO_2T - CO_2To)$ (3), where k_0 , k_1 , and k_2 are constants.

At $pH_0 = 7.40$ and $CO_2To = 25.8$ mEq/L (corresponding to $pCO_2 = 40$ mmHg), $BE = 0$. Therefore, $BE = K_1 (pH - pH_0) + K_2 (CO_2T - CO_2To)$ (4).

where, $pH_0 = 7.40$ and $CO_2To = 25.8$ mEq/L.

The constants, K_1 and K_2 , are determined from two simultaneous equations using two sets of known values of BE, pH, and CO₂T. The values of K_1 and K_2 are determined as $K_1 = 25$ and $K_2 = 0.78$ (5).

Actual bicarbonate: The equation for the calculation of actual bicarbonate is (4) $AB = CO_2T - 0.03 \times pCO_2$ (6).

Standard bicarbonate: A linear approximation between Base excess and standard bicarbonate is taken at $pCO_2 = 40$ mmHg. The equation is $SB = 25 + 0.9 (BE)$ (7).

Description of the program and computer entry: The values of pH, pCO₂, total CO₂, PO₂, O₂ saturation, and Hgb are entered in

Acid-Base Balance

Date/Time: 1/10/73 11:55 am
Patient Name/Number: John Doe #4544

pH : 7.50
pCO₂ : 42.3
CO₂T : 35
PO₂ : 112
O₂ SAT : 95
HGB : 14
Base Excess : + 9.6
Act. HCO₃ : 33.7
Std. HCO₃ : 33.6

Laboratory Data Indicates: Metabolic Alkalosis

Figure 1. The computer printout of the acid-base results.

the computer. The values of pH, pCO₂, and total CO₂ are used to calculate the base excess, actual bicarbonate, and standard bicarbonate. These values are printed. The normal ranges of values for pH, pCO₂, and total CO₂ are incorporated as a part of the computer program. Table-I lists a classification of diagnosis, based on high, normal and low values of pH, pCO₂, and total CO₂. The computer is used to search for the appropriate classification and this result is also printed. Figure I is a typical printout of the results.

Results and Discussion

The computer program has been utilized in our institution for six months. It has shown itself to be more reliable than the commonly used nomogram values. The increased reliability of the computer program is in part due to an availability of more assayed data than is utilized for the subjective system of nomogram calculations. There are several other advantages in using a computer for the calculation of acid-base results: the data are printed in a manner suitable for the patient chart. The patient's name and identification number are included on the results, which are printed in triplicate for charting, filing and billing purposes.

A probable diagnosis, based on the assayed values of laboratory data, is obtained and can be used by physicians as a supplement to the clinical information on a patient.

The computer operation is quick, provides more information than the nomogram, and in addition provides hard copies of the results.

Summary

An online computer program has been developed for the calculation of base excess, actual bicarbonate, and standard bicarbonate utilizing the assayed values of blood pH, $p\text{CO}_2$, and total CO_2 . The program provides a probable diagnosis on the basis of laboratory data, eliminates the plotting of an acid-base nomogram, and is designed for use with a timesharing laboratory computer.

Bergen Pines County Hospital

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Medical Schools Report Continued Growth

Significant increases in total enrollments of American medical schools were again reported during the 1972-73 school year. Preliminary figures indicate the total will be even greater for the current academic year, says the AMA's recent report on medical education.

The increase was achieved both by opening new schools and by expanding enrollment at many of the existing schools. Total number of medical schools in the fall of 1971 was 108. Three new schools opened in September, 1972; another in January, 1973; another in June, 1973, and another in September, 1973, for a total of 114 by the end of the 1973-74 academic year.

Medical school enrollment in the United States has been increasing steadily for more than ten years, and at an even more rapid rate in the past six years. From 1960 to 1966, enrollment grew about 500 per year; by 1972 the increase amounted to 3,896. First-year enrollment should exceed 15,000 by the 1976-77 academic year, the AMA survey reports.

Still more progress was made in the area of continuing education, whereby the physician keeps abreast of new developments in medicine. A total of some 40,500 physicians have qualified for the award for the AMA Physician's Recognition Award.

Interest continues to grow in the field of family practice, the AMA report says. Forty-nine medical schools now have undergraduate programs in family medicine, most established within the last three years. The number of approved residencies in family practice increased from 70 in 1971 to 172 in 1973.

Full-time medical school faculty also reached a new high in 1972-73, with a total of 33,550. Also there were almost 70,000 part-time paid and volunteer faculty members to supplement the full-time staff. Medical school faculty members also teach many students in basic life sciences, allied health professions and other areas in addition to medicine.

Minority student enrollment increased during the school year to 10.2 per cent of the total student body. Since 1968 the percentage of Afro-American students has more than doubled and the percentage listed as Mexican-American is four times greater. Although numbers are small, the proportion of American Indians and mainland Puerto Ricans also is increasing. Orientals comprise 0.7 per cent of the U.S. population, but 1.6 per cent of medical school enrollments. The proportion of women in the student body increased to almost 13 per cent from 11 per cent a year earlier. The first-year class was 17 per cent women.

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- infected burns, skin grafts, surgical incisions, otitis externa
- primary pyoderms (impetigo, ecthyma, sycosis vulgaris, paronychia)
- secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis)
- traumatic lesions, inflamed or suppurating as a result of bacterial infection.

Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

CONTRAINDICATIONS: Not for use in the external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

PRECAUTION: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Complete literature available on request from Professional Services Dept. PML.

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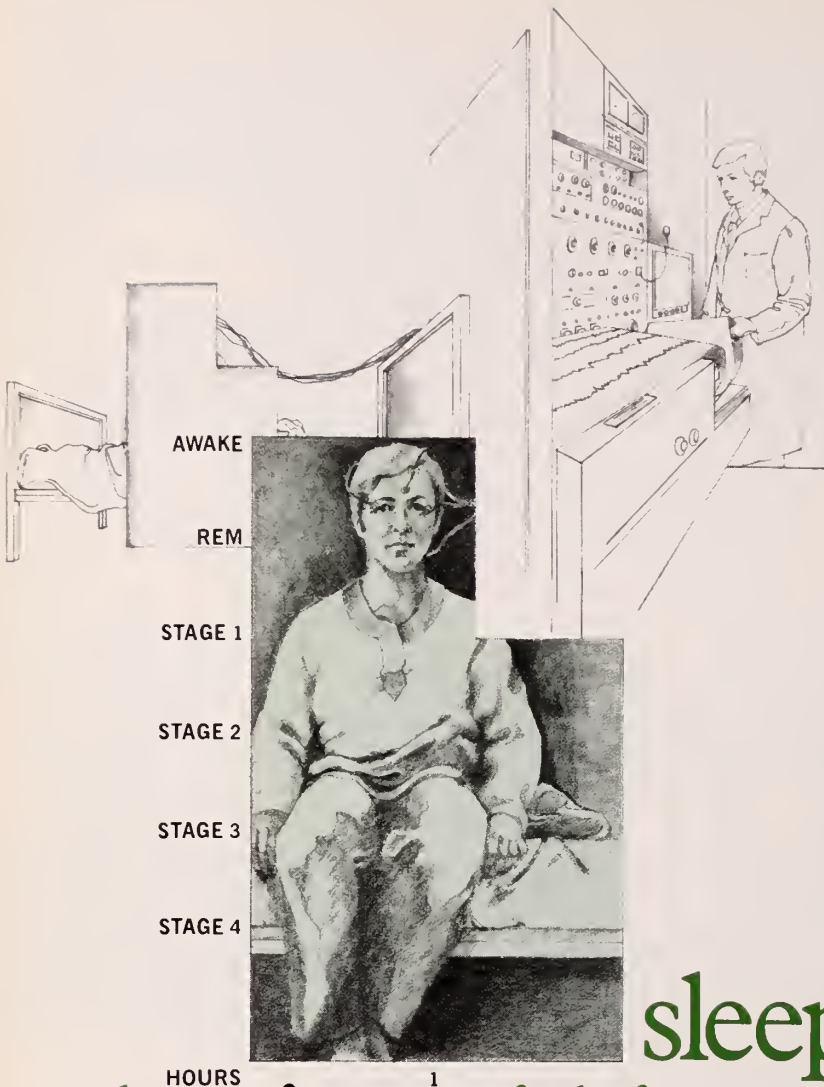
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Each gram contains: Aerosporin[®] brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg. neomycin base); special white petrolatum q.s. In tubes of 1 oz. and ½ oz. and ¼ oz. (approx.) foil packets



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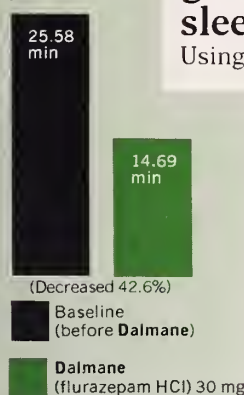
sleep

begins within
17 minutes, on average ...
an initial benefit of

Dalmane[®]
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**22-night clinical study of insomnia patients
in the sleep research laboratory and at home¹**

Three insomnia patients selected for difficulty falling asleep were administered Dalmane (flurazepam HCl) 30 mg for 14 consecutive nights. Placebo was given for four nights prior to and four nights after Dalmane. Physiologic tracings on Dalmane nights 1-3 showed sleep induction time averaged 13.90 minutes; on Dalmane nights 12-14, 18.80 minutes. Combined average for the 6 monitored drug nights was 16.35 minutes.¹

Average Time Required
to Fall Asleep (4 Studies,
16 Subjects²⁻⁵)



confirmed by clinical studies in four geographically separated sleep research laboratories²⁻⁵

Using a 14-night protocol involving eight insomniac and eight normal subjects, four studies confirmed the sleep-inducing effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule induced sleep within 17 minutes. In all these studies, Dalmane induced sleep rapidly, reduced nighttime awakenings, and provided 7 to 8 hours of sleep without repeating dosage²⁻⁵

Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

Dalmane is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been noted most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted below.

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdose, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated:* 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

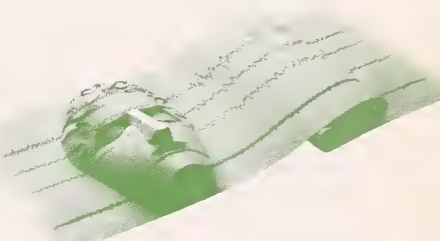
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One 30-mg capsule h.s. — usual adult dosage
(15 mg may suffice in some patients).

One 15-mg capsule h.s. — initial dosage for elderly or debilitated patients.

- induces sleep within 17 minutes, on average
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Opinion & Dialogue

Is there a need for a drug compendium?

A drug compendium of the type I envision would fill a definite need for the practicing physician. Such a compendium would give him all the information necessary for using

a drug intelligently, and it would do so in a clear, concise, convenient, objective and balanced fashion.

What a Compendium Should Contain

I believe the compendium should inform the doctor what a drug will do, when he should use for what type of patient, for how long, in what dose, what benefits his patient is likely to obtain, the risks involved, and cross-reaction with other drugs.

The information would be based on the package insert and have the same legal status. In fact, a complete compendium with complete and current information might even eliminate the necessity

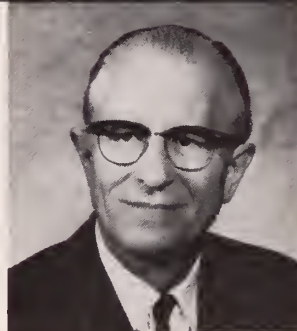
Government Health Official

Henry E. Simmons, M.D.
Deputy Assistant
Secretary for Health
Department of Health,
Education and Welfare



Maker of Medicine

Joseph F. Sadusk, Jr., M.D.
Warner-Lambert Company



A drug compendium, or preferably compendia, should, I believe, be private, not federal, in sponsorship. They should contain comprehensive listings of drugs available for prescribing. They should be single, legibly printed volumes of reasonable size, updated quarterly or semiannually and completely revised every year.

Function of a Compendium

A compendium should furnish the following information on drugs in the following order: indications for use, side effects, adverse drug reactions, contraindications, drug interactions, drug dosage at the dosage forms marketed. Drug prices should not be included because they vary so widely and change rapidly.

No compendium should set forth drugs of choice or discuss relative efficacy. Such questions must be left for the practicing physician to decide, whether on the basis of the medical literature, his own clinical experience, advice of colleagues, information supplied by manufacturers, and so on.

Nor should a compendium undertake to educate the doctor on how to use drugs. Rather, it must be a reference source designed primarily to refresh his memory as to drugs he may not use regularly. I

for a package insert in many instances. This would constitute a substantial saving for the manufacturer.

By a complete compendium, I do not mean a volume of prohibitive size. You don't need a book describing 25,000 products with an enormous amount of repetition. Rather, drugs should be arranged by class. Mutually applicable information would be provided, along with brief discussions pinpointing differences in specific drugs of that class. Listings would be cross-indexed in a useful way.

Other Available Documents as Sources of Information

Existing references such as PDR and the AMA Drug Evaluation are obviously useful but they are incomplete. Either they are not cross-referenced by generic name and do not group drugs with similar characteristics, or they do not list all the available and legally marketed drugs. And some of those omitted may be very useful.

On the other hand, drugs made by more than one supplier, tetracycline for example, may be fully described a dozen times in the same book.

While perhaps PDR could be rearranged and cross-indexed with generics included, and while the AMA Drug Evaluation might also be modified and expanded, I am not sure that the end result would have all the attributes required for a useful compendium. At the same time, you would run the risk of amassing a voluminous and unwieldy tome.

Should Editorial Comments Accompany the Listings?

Subjective judgments, in my opinion, have no place in a compendium. However, if there is substantial evidence based on a sound body of science concerning relative efficacy of several drugs, certainly that information should be included. The committee of experts compiling and editing a particular section would also have to assess

and indicate instances where a meaningful difference between drugs is pertinent.

Sponsorship, Compilation and Editing

Producing a book like this would undoubtedly be difficult and demanding. It would obviously take a great deal of talent and expertise, and would require a varied and experienced group, ranging from writers and editors to highly skilled clinicians and pharmacologists. Style, format and clarity of language would play an important part in determining the usefulness of the book. And it should be updated periodically and completely revised annually.

I have no opinion whether the government or the private sector should sponsor and/or finance the compendium. What is most important is that the compendium be an authoritative, objective and useful source of information for the doctor to have at hand as a ready reference.

should in no way imply control over the practitioner's prerogatives.

Why Another Compendium?

A practicable, single-volume compendium cannot, nor is it necessary to, include all drugs on the market today. From my practice of internal medicine for some 15 years, my experience as a consultant, and as a faculty member of four or five medical schools, I would estimate that a doctor uses only 30 to 35 drugs regularly. The 1972 Physicians' Desk Reference, incidentally, contained about 2,500 entries.

As to whether there should be a federal compendium, in my opinion, as stated earlier, the answer is easy—there should *not* be one. The proposal assumes that existing compendia are inadequate. We're not sure of that at all. Whatever its imperfections, the present drug information system in the U.S. is open, multifaceted, pluralistic and extensive. Good compendia exist, as well as other ample sources on drug therapy, ranging from journal literature through AMA Drug Evaluation to company materials. Not all physicians may use such sources as often or as well as they should, but that is the fault of the man, not of the sources.

In any event, rather than pro-

duce another book, it makes much more sense to work on improving existing compendia, and perhaps they could, as knowledge advances, include more accumulated clinical data and experience, and more information on drug interactions and adverse reactions.

Implications of a Federal Compendium

Take a hard look at the implications of a federal compendium. It would have the force of law, virtually dictating what drugs to use and how to use them. In effect, it would be a regulatory document with legal or quasi-legal status, posing medical/legal problems similar to those the doctor may now encounter if and when he departs from the provisions of the package insert. A compendium under federal aegis would tend to restrict decisions on drug therapy to one orthodox level—a most dangerous trend for medicine.

New Compendium—A Medical Option

I detect no ground swell of initiative or support whatsoever for a federal compendium—or, for that matter, for a new compendium of any type. A 1969 PMA survey conducted by Opinion Research Corporation found that only 15 per

cent of those physicians interviewed felt a new compendium was needed. And a large majority did not favor the involvement of the federal government if one were to be created, preferring instead a nongovernmental consortium.

Even if we come to a time when the medical profession itself opts for a new kind of compendium, it should be handled and financed, ideally, outside both government and industry. Final review and editorial authority could be delegated, say, to specialty bodies and medical societies—but above all, *not* the government.

Surely the health care system in the United States has far more vital matters to consider than the extensive cost and effort that would have to go into the preparation and maintenance of a new, monolithic compendium, and especially one bearing the imprimatur of the federal government.

Opinion & Dialogue

What is your opinion, doctor? We would welcome your comments.

The Pharmaceutical
Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005



The relationship between NJFHCE and PSRO, the New Jersey Hospital Association, and the health insurance industry is discussed. All physicians in New Jersey should be aware of this material.

Special Article

The New Jersey Foundation for Health Care Evaluation: An Interim Report

Richard E. Lang, M.D., President, NJFHCE

This interim report concerns the relation of the Foundation to (1) PSRO, (2) hospital associations, and (3) the health insurance industry. It is presented in the interest of clarifying for all physicians the relation of the NJFHCE to these organizations, all of whom, in one way or another, seem intent upon exercising a significant influence in defining the scope and methodology of peer review in New Jersey.

As viewed by the physicians engaged in the formation of the Foundation, "Peer review is the sole responsibility of Peers," i.e., practicing physicians located in an area demonstrating similar social and economic environmental patterns and who have at their disposal skills and facilities of a kindred type. Such physicians as these, and only such as these, can properly implement a peer review mechanism.

This Foundation contemplates, as far as practically possible, an objective review system—one based on criteria adopted by the peers involved. New Jersey physicians of the many sub-specialties have labored to formulate such criteria for patterns of care, together with recommended lengths of stay for over one hundred of the more common diagnoses requiring hospital care.

The recommended methodology provides that initial review take place within the hospital in which the patient is being treated. This review may take different forms: (1) prospective, (2) concurrent, or (3) retrospective.

The Foundation contends that close attention to (1) and (2) will render (3) an academic exercise. Furthermore, it believes that if the

patient is to benefit from the results of the review, it can only occur as the result of scrupulous attention to prospective and concurrent effort.

Subsequent review or appeals will be handled on a regional basis, by panels of physicians drawn from or appointed by the medical staffs of the hospitals in the designated area. This table of organization would appear to meet PSRO requirements as we now understand them. However, as yet there has been no definitive information emanating from HEW.

PSRO

During the past year our most difficult problems have stemmed from trying to anticipate the requirements of PSRO. In conversations with HEW staff charged with implementation of PSRO, we encounter phrases such as "legislative intent" when we attempt to inquire into the rationale of area designations, and so on. Last fall we were most fortunate to meet and talk with Senator Bennett (Mr. Legislative Intent in the flesh). All questions of a definitive nature, including those concerned with funding, were disposed of with a single statement: "That, Doctor, must be negotiated with the Secretary of HEW by each individual PSRO."

At this juncture we can be certain of only the following:

1. Public Law 92-603 places in the hands of one man, the Secretary of HEW, the potential of more power over the practice of medicine than has ever been held by one man in the history of American medicine.
2. The Secretary of HEW is feeling his way and is sensitive to public opinion, including that of doctors. Witness the withdrawal, at least temporarily, of the directive concerning "pre-admission certification," and an evident willingness to consider possible errors in

area designations by granting an extension for objections to February 15.

Whatever course the physicians of New Jersey elect, area designation will undoubtedly rest with them on the local level, for the law provides that this power resides with a majority of physicians representing a specific area. However, it must be clearly recognized by all that to react to any controversial directive or to engage in contractual negotiations with HEW on a unilateral basis must of necessity compromise your neighboring colleagues. When one considers the implied power residing in the Secretary's office, anything less than physician unity is unthinkable. *Whether our unity is manifested by a single state PSRO or a council of PSRO's is not important, but the concept of unity, when dealing with a federal bureau, is essential.*

Hospital Associations

The vested interest of hospital trustees, administrators and the hospital associations in the fruits of peer review cannot be questioned. However, it is our contention that the American Hospital Association's Quality Assurance Program (QAP) and the later JCAH Trustees, Administrators, Physicians Proposal (TAP), no matter how laudable their intent, both deal with designs for peer review implementation that are the products of the Hospital Association. Ultimately, they must be responsible to hospital trustees for approval. This is borne out conclusively in the New Jersey Hospital Association's contention that by adopting their "modus operandi" any hospital may obtain PSRO exemption.

While we applaud the efforts of both the AHA and the NJHA, through JCAH, to stimulate the adoption of improved standards for hospital accreditation, we are not prepared to relinquish, through default or by subcontracting, the prerogatives of designing and implementing peer review systems where they do not presently exist as systems under physician control.

There can be no question that we are in fundamental agreement that all peer review

should have its inception within the hospital confines. It is, however, our contention that the results of such review must be monitored by physicians in the general area, who are not members of that particular staff, and who may well constitute the local PSRO. Not only is this procedure mandated by P.L. 92-603, but it is required to satisfy our obligations of being publicly accountable for quality of care.

Public accountability stems from the need to answer factually those critics who compare hospital admissions of the private practitioners, working on a fee-for-service basis, with the hospital admissions of physicians employed by HMO's (Kaiser-Permanente) or physicians associated with a San Joaquin-type foundation who, while practicing on a fee-for-service basis, are nonetheless on a capitation program which involves financial risk. In both instances fewer admissions and shorter lengths of stay are evident when compared to the conventional type of practice in which most of us are involved. It is long past time when we should have factual answers to these pressing questions. Obtaining answers, we believe, is the responsibility of the physician community. It was expressed clearly when the House of Delegates of The Medical Society of New Jersey assembled on December 10, 1972, and instructed the Foundation to formulate a "comprehensive and systematic peer review mechanism."

Hopefully the New Jersey Hospital Association will see fit to support us in this endeavor. We sense their apprehension and doubt regarding the desirability of a program such as the Foundation espouses. Perhaps with the passage of time we shall be able to convince our skeptical friends of the worthiness of this undertaking. What with the clamor for public accountability, we see no alternate route promising comparable results.

Health Insurance Industry

As a third member involved with health care delivery, the health insurance industry most certainly has a vested interest in the results of peer review. How else can they hope to increase parameters of care for the unit dollar;

to achieve this a plan for efficient utilization and discharge planning is essential.

Their problem seems to be: Where and when do claims' review and peer review interface? With their possession of all the available data regarding patients and physician profiles, the peer review being done to date has been on their initiative. True, it has not been objective nor has it contributed anything to quality assessment or assurance. Rather it has dealt primarily with physicians' fees and, in the case of the fiscal intermediaries, it has endeavored to determine whether the physician was providing *basic care* (a phrase not easily defined, but conspicuous in Title 18 and 19 contracts).

In a word, we seem now a threat to certain people whose function is claims' review for the health insurance industry. Can we resolve these fears and interface with this industry in hope of providing more efficient use of the health care dollar without sacrificing quality of care?

Happily, the American Association of Foundations for Medical Care, together with the National Association of Blue Shield Plans, is hard at work trying to resolve this dilemma. Reports filtering back to both foundations and the industry are encouraging.

Our relations with the entire health care industry of New Jersey, both proprietary and non-profit, have been excellent. Much of the

original work on lengths of stay in New Jersey hospitals was made available by their generosity. As for the future, we see peer review as an activity which, for the most part, will be conducted within the hospital confines. Cases on appeal or review by PSRO entities will undoubtedly be performed by physician-designated panels of peers on a regional basis. The result of this review is to be binding on all parties—physicians, the Federal government, and the health insurance industry.

In summary, we wish to urge active participation by all interested physicians in the formation of policies which will direct our relationships with the other members of the health care team—namely, the Hospital Association and the health insurance industry.

Our role as physicians places us in the position of acting as the purchasing agent for our patients in the area of medical care. Faced with a universal concern about the escalating costs of medical care, it is essential that an efficient peer review system be operable to insure against economies resulting in lower standards of quality. This we deem our responsibility as professionals; shirk it and we relegate ourselves to the role of highly paid technicians. If we are to be compensated as professionals let us perform as such. In the interest of public accountability we contend this performance should be monitored and that the best available format for this function is, we believe, "The New Jersey Foundation for Health Care Evaluation."

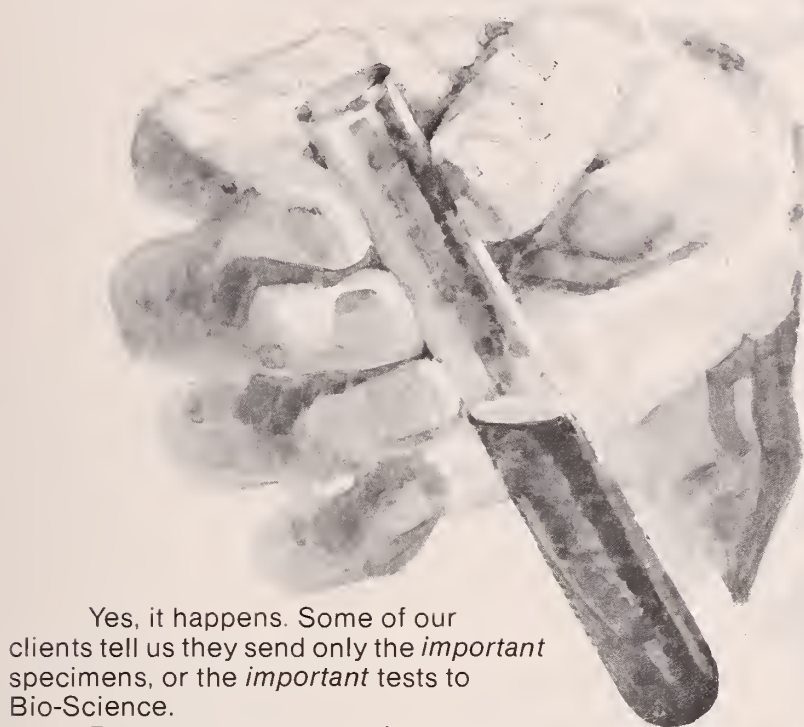
Journal for Medical Writers

Medical Communications, a journal for medical writers, editors, and broadcasters, has been introduced by the American Medical Writers Association. It will be published quarterly. Purpose of the new journal is not merely to reflect the point of view of the AMWA membership (which consists of nearly 1,500 medical writers, editors, publishers, pharmaceutical writers, illustrators, audio-visual writers, scientists, and clinicians). It will hopefully also serve as the vehicle for introducing new con-

cepts and ideas which AMWA can draw upon in the formulation of its policies and activities of the future.

Requests for subscriptions (\$5 per year) should be sent to: American Medical Writers Association, 9650 Rockville Pike, Bethesda, Maryland 20014. Proposed articles, editorial contributions, and letters for publication should be addressed to: Mr. Byron T. Scott, 166 East State Street, Athens, Ohio 45701.

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NEW JERSEY DOCTORS' NOTEBOOK

Trustees' Minutes

March 17, 1974

A regular meeting of the Board of Trustees was held on March 17, 1974, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

AMA Membership . . . Tabled action on requests from the AMA to take a position requiring Society members to become members of the AMA, since a resolution from a component society on this same issue is forthcoming.

Gasoline Shortage . . . Received a reply from the State Energy Office, (in response to the Society's communications) stating that that Office is drafting a plan to permit local municipalities to make gasoline available to emergency personnel, including physicians, when stations would be closed to the general public.

Professional Insurance Company of New York . . . Directed that the Society actively support legislation, to be introduced by Senator Feldman (Bergen), which proposes to create a fund provided by casualty companies to protect the insureds of insolvent companies, if the participation of all casualty companies would be required, not just malpractice casualty insurance companies.

Note: This action was prompted by the fact that 500 New Jersey physicians, insured by the Professional Insurance Company of New York—now in a state of financial instability—have been informed that no money will be available for New Jersey indemnification.

Summit Radiological Associates . . . Received the following explanation from the Acting Commissioner of Health, William Dougherty, M.D., concerning the complaint from Summit Radiological Associates that it was being treated as a health care facility rather

than a private practice (see page 302, April 1974 *Journal*):

Upon complaint from the Memorial General Hospital in Union that Summit Radiological Associates intended to provide radiological services in the Medical Arts Building in Roselle Park, two visits were made to the offices for inspection; no question of certification of need was raised as a result of the visits. A second complaint gave rise to a cease and desist order that was opposed by legal counsel of the group. Radiation survey reports and regulation forms were submitted by the group to the Department of Environmental Protection. The last inspection was a fact-finding effort to determine if the facility was in operation, and was not conducted with any view to harassment. The issue of cease and desist is now pending final disposition.

Council on Legislation . . . Approved, as amended, the report of the February 21st meeting of the Council on Legislation, including the recommended positions on current legislation.

Current State Legislation—*indicates same as bills of 1972-73

- *S-11 —To remove exclusion of agricultural pursuits from requirements for posting State child labor abstracts; to limit farm employment of 14 and 15 year old children to periods not interfering with school and health; to prohibit farm employment of 12 and 13 year old children; to prohibit employment of minors, age 14 and 15, near power-driven machinery and to set maximum hours of farm work for children as 8 hours. *APPROVED*
- *S-108 —To correct a typographical error in P.L. 1966, Chapter 141, concerning content of alcohol in a motor vehicle violation defendant's blood. *APPROVED*
- *S-110 —To authorize establishment of regional air pollution control districts by two or more municipalities. *APPROVED*
- *S-117 —To require freeholders in counties with facilities for detention of children under 16 years of age to establish tutorial and mental health programs under guidelines to be established by the Commissioner of Institutions and Agencies. *APPROVED*
- *S-152 —To direct the Board of Education to require immunization of all pupils against rubella as a condition for entrance to kindergarten and grades one through four. *DISAPPROVED*, because under certain circumstances immunization against rubella is contraindicated.

- *S-170 —To provide that no dog brought to a pound or shelter shall be sold or otherwise be made available for experimentation. *DISAPPROVED*, because it would hinder progress of scientific animal research, with jeopardy to the public welfare.
- *S-183 —To create the New Jersey Medical Education Loan Fund in the Department of Higher Education. *APPROVED*
- *S-188 —To provide that any person who knowingly possesses or sells drug paraphernalia evincing an intent to use the same for unlawfully manufacturing, packaging, or dispensing of any narcotic drug is a disorderly person. *APPROVED*
- *S-197 —To provide for regulation and licensing of persons engaged in a mail order drug distribution business. *APPROVED*
- *S-245 —To include under the act concerning sale or possession of hypodermic syringes, needles, or instruments the use thereof adapted for the use of controlled dangerous substances. *APPROVED*
- *S-251 —To provide that no dentist shall administer a local or general anesthetic unless the State Board of Registration and Examination has certified that he has successfully passed a course in anesthesia or an examination conducted by the Board. *DISAPPROVED*, because the legislation is unnecessary inasmuch as the State Board of Dental Examiners can deal with this matter by means of regulation.
- *S-256 —To provide that no person having justification over potable water shall direct mandatory fluoridation until the question has been first approved by voters in a referendum. *DISAPPROVED*, because it is a practical impossibility to achieve, by referenda, the mandatory fluoridation of the water supply of counties when many of them are serviced by a single company. For this reason The Medical Society of New Jersey, since 1971, has been on record as favoring the fluoridation of potable water supplies by means of a mandatory program under the aegis of the Department of Environmental Protection.
- *S-269 —To require the State Department of Health to test all newborn infants for phenylketonuria. *DISAPPROVED*, because not all children are susceptible to the malady and also because the present testing procedure is not precise or dependable.
- *S-277 —Designated "The Catastrophic Illness Assistance Act of 1973" to authorize program for State assistance; appropriates \$200,000. *APPROVED*
- *S-281 —To permit freeholders in counties which have no county home or hospital for the diagnosis and care of children afflicted with Cooley's anemia to appropriate not more than \$5,000 each year for such care. *APPROVED*
- *S-286 —To provide that any seller of age 18 and not addicted to the use of morphine, cocaine, heroin, opium or any derivative thereof shall, upon conviction, be punished by death. *NO ACTION*
- *S-292 —To require adult attendants on school buses transporting handicapped children. *NO ACTION*
- *S-317 —To provide for the mandatory civil commitment of drug addicts and to establish a procedure therefor. *APPROVED*
- *S-337 —To remove from municipalities the authority to prosecute people for public drunkenness. *APPROVED*
- *S-338 —To eliminate public drunkenness as a disorderly persons' offense. *APPROVED*
- *S-347 —To provide for medical examination of school pupils who may be under the influence of drugs by either the medical inspector or any other doctor. *APPROVED*
- *S-350 —To require psychological examinations before persons are appointed to a police department.
- Note:* Council had recommended "no action." The Board believes that psychiatric and/or psychological testing of potential police candidates is desirable. If the technical workmanship of the bill is not satisfactory, then appropriate amendments should be offered. The Board directed that this bill be referred back to the Council with these comments.
- *S-360 —To provide that no professional teaching staff member shall use any designation indicating he possesses a doctor's degree unless earned from a college whose degrees are acceptable to the State Department of Higher Education. *NO ACTION*
- *S-361 —To provide for the establishment of a central registry of blood donors in the Department of Health and to appropriate \$50,000. *DISAPPROVED*, because it would be a duplication of record keeping by existing blood banks in the State of New Jersey with no appreciable advantages.
- *S-368 —To authorize the Commissioner of Health to purchase residential and non-residential care and treatment of drug addicts and abusers in non-State facilities. *APPROVED*
- *S-379 —To provide that leaves of absence shall be granted classified civil service employees for the purpose of donating blood. *DISAPPROVED*, because The Medical Society of New Jersey strongly supports the voluntary donation of blood. It holds that to grant a donor a day off with pay is to expose him to the same profit motivation that taints commercial blood giving.
- *S-380 —To provide that leaves of absence shall be granted State employees for the purpose of donating blood. *DISAPPROVED*, because The Medical Society of New Jersey strongly supports the voluntary donation of blood. It holds that to grant a donor a day off with pay is to expose him to the same profit motivation that taints commercial blood giving.
- *S-381 —To prohibit the sale of children's automobile seats which do not conform to the Federal Motor Vehicle Safety Standards for children's seats and harnesses and do not have affixed a date of manufacture label with instructions for proper installation. *APPROVED*

- *S-382 —To provide for the licensing and regulation of day care facilities by the Department of Institutions and Agencies; to establish license fees and to establish and specify representation on New Jersey Citizens' Advisory Committee on Day Care Licensing to be composed of 20 members. *NO ACTION*
- *S-386 —To provide that if the weight of alcohol in a defendant's blood is 0.07% or more, it shall be presumed that his ability to operate a motor vehicle was impaired. *DISAPPROVED*, because The Medical Society of New Jersey favors the criterion proposed in A-719 of 1972.
- *S-395 —To provide for supervision of projects for prevention of blindness by the Commission for the Blind and to provide that funds shall be made available on a project basis for programs conducted by the Department of Health and organized health services groups. *NO ACTION*
- *S-407 —To establish a "Contracts for Health Studio Services Act" to provide for certain requirements, limitations and prohibitions concerning such contracts; to require health studios to file bonds with the Director of Consumer Affairs and to provide for recovery of damages upon, and a penalty for, violations. *NO ACTION*
- *S-444 —To define child care centers to include private and public child care center, day nursery, nursery school or other establishment of similar character; to define Local Child Development Council and to provide for a Child Development Committee in the Department of Education and other amendments. *APPROVED*
- *S-447 —To provide that the medical assistance program shall include the cost of drugs prescribed for persons 65 years of age and older, not otherwise eligible for assistance, who are determined by the Commissioner of Health to need such financial assistance. *APPROVED*
- *S-449 —To define "qualified applicant" under the New Jersey Medical Assistance and Health Service Act to include in determinations of eligibility assistance under this program the chronic and recurring medical expenses of the family unit as a component of the standard of need. *APPROVED*
- *S-499 —To provide that the act concerning the practice of medicine and surgery shall not apply to the performance of any act at the direction and supervision of licensed physician by a person working under a job description approved by the Board of Medical Examiners and possessing qualification established by the Board. *APPROVED*
- *S-500 —To revise the statutory law with respect to consent by minors to performance of hospital, medical, or surgical procedures or treatment. *ACTION DEFERRED*, pending conference with sponsors of the bill.
- *S-502 —To provide that the Department of Health shall prepare lists of family planning clinics in the State together with birth control information pamphlets for distribution by marriage licensing officers. *APPROVED*
- *S-503 —To provide that no person shall be required to perform or assist in an abortion or sterilization and no hospital or other health care facility shall be required to provide such services or procedures. *APPROVED*
- *S-504 —To define and include "abortion service facility" under the law concerning licensing and regulation of health care facilities. *APPROVED*
- *S-505 —To prohibit profit-making medical referral services. *APPROVED*
- *S-506 —To limit circumstances under which a report of a referral for abortion services or of an inquiry or request therefor may be furnished; to provide for actual and exemplary damages for willful violation. *APPROVED*
- *S-508 —To provide that any person, other than a person licensed to practice medicine and surgery, who performs an abortifacient act shall be guilty of a high misdemeanor. *APPROVED*
- *S-519 —To create a commission to develop a State plan for the delivery of mental health services; appropriates \$25,000 therefor. *APPROVED*
- *S-520 —To establish a Mental Care Standards Board and a Mental Patient Care and Standards Review Board. *NO ACTION*
- *S-528 —To prohibit use of Medicaid funds for abortion services except where the mother's life must be preserved.
- Note:* The Council had recommended "approved." The Board directed that the bill be referred back to Council because if abortion services are available for private patients, they should also be available for Medicaid recipients.
- *S-535 — To establish in the Department of Health a program for the identification, eradication and treatment of Beta Hemolytic Streptococcus infections. *APPROVED*
- *S-539 —To exempt employees of a humane society from prohibition of the Controlled Dangerous Substances Act. *APPROVED*
- *S-546 —To provide that any condition or impairment of health to a uniformed member of a paid fire department caused by hypertension, heart disease, or tuberculosis shall be deemed to be an occupational disease. *DISAPPROVED*, because it involves diagnosis by legislative enactment rather than by medical investigation.
- Note:* The Board suggested that the Council consider discussion of disability determinations with appropriate State officials, noting the large sums of money that are currently being wasted.
- *S-569 —To provide that all insurance advertising which offers cash benefits for hospital confinement shall include a clear statement detailing the percentage of gross premium dollars which have been paid in health and accident benefits to persons insured thereunder. *APPROVED*
- *S-571 —To provide that no public utility shall, during the course of any labor dispute,

cancel any life insurance, hospitalization insurance, or medical insurance coverage of its employees. *APPROVED*

- *S-575 —To remove from the Temporary Disability Benefits Law all limitations relating to pregnancy, miscarriage, or abortion. *NO ACTION*
- *S-585 —To increase weekly maximum workmen's compensation benefits for permanent partial disabilities to 2/3 of average weekly wages of employees covered by the unemployment compensation law, to increase funeral allowances, to require free choice of physician, to establish a Workmen's Compensation Board of Appeals and other changes. *APPROVED*
- *S-586 —To provide for degrees of criminal culpability for criminal possession of controlled dangerous substances. *NO ACTION*
- *S-597 —To require every State agency to prepare an environmental impact statement on each project it proposes to approve or implement. *APPROVED*
- *S-613 —To establish a Department of Human Services where the duties shall include development and implementation of comprehensive State plans to provide for continuity of care for all persons requesting and receiving treatment in institutions, agencies, and programs under its jurisdiction, including the fullest utilization of available community resources by purchase of care and of service contracts with private agencies and individuals, to transfer various institutions and non-institutional agencies from the Department of Institutions and Agencies and to appropriate \$500,000. *APPROVED*
- *S-642 —To provide that courses in public health in public schools shall include instruction in nutrition and selection and preparation of food for personal and family consumption. *APPROVED*
- *S-650 —To establish weekly permanent partial disability workmen's compensation benefits as 2/3 of weekly wages received at the time of injury subject to a maximum of \$60 per week, to provide for payment of \$40 a week for the first 7½% of disability; to provide an additional 25% for amputations of major scheduled members; to provide for payment of previously existing cardiovascular functional disability out of a second injury fund and other amendments. *APPROVED*
- *S-657 —To grant physicians and surgeons immunity from liability for services rendered at the request of police where persons are suspected of operating a motor vehicle under the influence of liquor or drugs. *APPROVED*
- *S-658 —To prohibit review of a workmen's compensation award on the grounds that the disability has diminished where the injured employee has submitted to rehabilitation. *APPROVED*

Note: The Board changed the Council's position of "no action" to "approved."

- S-665 —To redefine various terms with respect to the practice of nursing. *ACTION DEFERRED*

FERRED, referred to Committee for Emergency Action.

- *S-670 —To authorize the Commissioner of Health to contract with voluntary non-profit hospitals for early care, treatment, rehabilitation, counseling, and education of drug users and their families and to appropriate \$150,000. *APPROVED*
- S-681 —To provide that in family type health insurance policies, which include insurance for newborn children, the coverage for each child shall commence with his date of birth and include, without limitation, all eligible services. *APPROVED*
- S-682 —To provide that coverage under the act concerning hospital service corporations of newborn children under family contracts shall commence with the date of birth of each child and include, without limitation, all eligible services. *APPROVED*
- S-683 —To provide that coverage under the act concerning medical service corporations of newborn children under family contracts shall commence with the date of birth of each child and include, without limitation, all eligible services. *APPROVED*
- *S-741 —To provide that illnesses caused by hypertension, heart disease, tuberculosis, including coronary thrombosis, shall be deemed an occupational disease of fire and policemen. *DISAPPROVED*, because this bill involves diagnosis by legislation rather than by medical examination.
- *S-742 —To provide under Chapter 253, P.L. 1944, that hypertension, heart disease, tuberculosis suffered by firemen and policemen shall be presumed to have been suffered in the line of duty. *DISAPPROVED*, because this bill involves diagnosis by legislation rather than by medical examination.
- *S-743 —To provide under Chapter 255, P.L. 1944, that hypertension, heart disease, tuberculosis suffered by fire and policemen shall be presumed to have been suffered in the line of duty. *DISAPPROVED*, because this bill involves diagnosis by legislation rather than by medical examination.
- *S-753 —To include central services facilities operated by, rather than serving, institutions within definition of "health care facility" in the Health Care Facilities Planning Act. *APPROVED*
- *S-764 —To authorize the Department of Health to establish programs of rehabilitation for drug dependent persons, to provide facilities and to provide for licensing operators of such facilities. *DISAPPROVED*, because the legislation is unnecessary in view of the fact that the requested authority already inheres in the Department of Health and is being exercised through the Department's Division of Drug Control.
- S-828 —To permit any first class county maintaining a maternity hospital to transfer and convey real property comprising the maternity hospital at private sale and without consideration to any municipality within the county maintaining a hospital for the sick and injured. *NO ACTION*

- S-835 —To regulate the practice of acupuncture, provide standards, qualifications and certification of practitioners. *ACTION DEFERRED*, referred to Committee for Emergency Action.
- S-850 —To provide additional penalty provisions under the Controlled Dangerous Substances Act with respect to Schedule I and II narcotic drugs. *NO ACTION*
- S-854 —To direct the Department of Health to establish a program for the care and treatment of persons suffering from terminal illnesses and to appropriate \$500,000. *APPROVED*
- S-855 —To authorize the Commissioner of Health to formulate codes to restrict activities contributing to air pollution and to provide for public notice and hearings. *NO ACTION*
- S-856 —To provide that the codes, rules, and regulations of the Department of Health may include requirements for industries throughout the State to install certain types of air pollution control equipment. *NO ACTION*
- S-859 —To establish a Division of Consumer Health Services in the Department of Health. *NO ACTION*
- S-860 —To direct the Department of Health to establish a program for the care and treatment of persons suffering from terminal illness and to appropriate \$500,000. *APPROVED*
- S-862 —To establish a Division of Chronic Illness Control and an Advisory Council on the Chronic Sick within the State Department of Health; to provide for State assistance to persons suffering from chronic illnesses. *APPROVED*
- S-866—To provide that no person shall store or drain or dispose of dangerous or toxic chemicals in or on the soil unless the soil is protected by a dike or shield and unless an annual permit is obtained from the Commissioner of Environmental Protection. *APPROVED*
- S-885 —To provide for the establishment by the Department of Education, within the limits of available appropriations, of up to five-day school facilities for the education of children of school age who suffer from severe handicaps. *NO ACTION*
- *A-14 —To require all vehicles transporting children to school to observe all traffic safety laws applicable to school buses.—*APPROVED*
- *A-21 —To provide for reimbursement of licensed chiropractors for services under the act concerning medical service corporations. *ACTIVE OPPOSITION*, because the services which chiropractors are licensed to provide are not among the services covered by medical service corporations. They are not licensed or recognized as physicians or surgeons and are not qualified—or licensed—to supply medical and/or surgical services for injuries and/or disease conditions.
- *A-22 —To provide for reimbursement of licensed chiropractors for services under the act concerning health insurance other than group and blanket insurance. *ACTIVE OPPOSITION*, because the services which chiropractors are licensed to provide are not among the services covered by medical service corporations. They are not licensed or recognized as physicians or surgeons and are not qualified—or licensed—to supply medical and/or surgical services for injuries and/or disease conditions.
- *A-23 —To provide for reimbursement of licensed chiropractors for services under the act concerning group health insurance. *ACTIVE OPPOSITION*, because the services which chiropractors are licensed to provide are not among the services covered by medical service corporations. They are not licensed or recognized as physicians or surgeons and are not qualified—or licensed—to supply medical and/or surgical services for injuries and/or disease conditions.
- *A-25 —To repeal P.L. 1971, Chapter 231, thereby restoring P.L. 1952, Chapter 230, requiring registration of narcotic addicts with the police. *NO ACTION*
- *A-27 —To provide for eye examinations of every child enrolled in the kindergarten class and to permit boards of education to authorize examinations for pupils in other grade levels. *DISAPPROVED*, because the school physician already has the obligation to screen for physical defects, including impairment of vision. The additional requirement of an optometrist or a physician licensed to practice medicine in the State of New Jersey would, in consequence, be an unjustifiable and expensive redundancy.
- *A-28 —To direct the Board of Education to require immunization of all pupils against rubella as a condition for entrance to kindergarten and grades one through four. *DISAPPROVED*, because under certain circumstances immunization against rubella is contraindicated.
- *A-30 —To permit boards of education to provide sex education for grades 7 through 12. *DISAPPROVED*, because sex programs should not be prohibited for pupils below the 7th grade, provided the programs and teachers are carefully screened and approved and parental approval is given.
- *A-46 —To require that each bio-analytical laboratory be under supervision of a person licensed to practice medicine and surgery and certified in clinical pathology or a licensed bio-analytical laboratory director. *DISAPPROVED*, because it is not in the best interest of the public. Many physicians practicing pathology are certified in anatomical pathology, but not clinical pathology although they have extensive training in that field. Many hospital laboratories are supervised by well-qualified physicians who are not certified specialists in clinical pathology. Therefore, if this bill is enacted it will create a crisis situation in many New Jersey hospitals that are providing admirable services to the community.
- *A-50 —To permit applicants for examination to practice medicine and surgery to declare

citizenship intent in an affidavit submitted to the Board. *APPROVED*

- *A-60 —To establish a Department of Mental Health as a principal department of the State Government and to appropriate \$100,000 therefor. *APPROVED*
- *A-72 —To extend the statute of limitations from 2 years to 3 years from the cause of action to personal injury actions. *DISAPPROVED*, because it would unnecessarily precipitate a professional liability insurance crisis in New Jersey.
- *A-77 —To provide that any child who is afflicted with the disease of sickle cell anemia shall be eligible for the care and treatment provided for crippled children. *APPROVED*
- A-80 —To provide under the Uniform Anatomical Gift Act that a donor may authorize a licensed funeral director who has completed a course in eye enucleation to enucleate eyes for a gift after certification of death by a physician. *APPROVED*
- A-95 —To provide that no physician shall charge a patient for completing a medical claim form in connection with a health insurance policy. *ACTION DEFERRED*, pending conference with sponsors of the bill.
- *A-96 —To provide that courses in public health in public schools shall include instruction in nutrition and selection and preparation of food for personal and family consumption. *APPROVED*
- *A-132 —To permit the State Department of Health and Local Boards of Health to provide at public expense for the immunization of pupils from diseases which are required to be immunized against by the State Sanitary Code. *NO ACTION*
- *A-133 —To provide that it shall be an unfair trade practice for a life or health insurance company to fail to make available for issuance all the kinds of insurance stated on the insurer's certificate of incorporation pursuant to subsection (d) of R.S. 17B18-4. *NO ACTION*
- *A-161 —To require physical and mental examinations for all school crossing guards. *APPROVED*
- *A-168 —To require, in place of permit, employment of an optometrist as school vision examiner and a physician to be known as school hearing examiner. *APPROVED*
- *A-170 —To exclude from the old age assistance law definition "lacks adequate support" all expenditures for medical services and prescription drugs for treatment of a condition of a chronic recurring nature in excess of 30% of an applicant's income and resources and shall not be included for any determination of available income. *APPROVED*
- *A-171 —To provide for "occupational hearing loss" under the Workmen's Compensation Law. *APPROVED*
- *A-176 —To require retired school buses presently

used to transport senior citizens to recreation activities to comply with safety regulations applicable to school buses as promulgated by the Department of Education. *APPROVED*

- *A-177 —To increase from 20 to 45 days the notice required for proposed administrative actions under the Administrative Procedure Act. *NO ACTION*
- *A-180 —To prohibit the burning of meadows from March 16 to April 1 of each year. *NO ACTION*
- *A-181 —To prohibit the taking of surf clams under 4½ inches long (*episula solidissima*) from any of the natural clam beds under tidal waters of the Atlantic seaboard except from December 1 to March 31 of each year and to provide for licensing. *NO ACTION*
- *A-189 —To provide for the licensing of residential child care facilities. *NO ACTION*
- *A-204 —To provide that any correctional institution officer who suspects any inmate of using any controlled dangerous substance the officer shall report his findings to the medical officer and the inmate shall thereupon submit to any and all valid examinations. *APPROVED*
- *A-207 —To regulate the sales of medicines containing ethyl alcohol, antihistamines, destromethorphan, phenobarbital, or its salts, ephedrine or its salts or belladonna or any of its alkaloids. *APPROVED*
- *A-277 —To provide that municipal, county, and regional boards of health shall provide newspapers of local and statewide circulation with the names of restaurants newly charged with health code violations and to permit use of radio and television for public announcements. *NO ACTION*
- *A-237 —To provide that the act concerning licensing of physicians shall not apply to a physician or surgeon duly licensed to practice in any foreign country where requirements are not lower than in this State where such person is temporarily teaching in a medical school approved by the Board of Medical Examiners. *DISAPPROVED*, because it would circumvent the orderly and dependable procedure for licensing of physicians adopted by the State of New Jersey as a means of protecting the public against unqualified practitioners. It would impose upon the State Board of Medical Examiners the almost impossible responsibility of ascertaining the standards of licensure applied in all foreign countries, and of deciding whether those standards may be accepted as equivalent to those which New Jersey imposes or to those of other states whose licenses New Jersey accepts on a basis of reciprocity.
- *A-248 —To provide that any person, including a minor, believing himself a narcotic addict, may be admitted to any state or county institution having special facilities for care and treatment of drug addicts. *APPROVED*
- *A-254 —To require hearing and eye examination of every motor vehicle applicant and once every six years thereafter. *APPROVED*

- *A-258 —To direct the acquisition of the Margaret Hague Maternity Hospital for \$1 for use of the College of Medicine and Dentistry of New Jersey. *DISAPPROVED*, because the College is primarily interested in education and should not be burdened with the administration and operation of state facilities not essential to that educational function.
- *A-267 —To provide that any applicant for a medical license who in addition to supplying required proofs can show that he has been engaged in a reputable practice for 10 years shall be granted a license without further examination upon payment of a fee. *DISAPPROVED*, because it would abrogate the present discretionary powers of the Board to act on the basis of objective evidence and would impose an obligation to make subjective judgments as to what constitutes "proof," "reputable practice," and "conceded eminence and authority in his profession."
- *A-268 —To provide for granting an applicant a license to practice medicine and surgery upon proving that he was examined and licensed by the appropriate body of any foreign country. *DISAPPROVED*, because it would circumvent the orderly and dependable procedure for licensing of physicians adopted by the State of New Jersey as a means of protecting the public against unqualified practitioners. It would impose upon the State Board of Medical Examiners the almost impossible responsibility of ascertaining the standards of licensure applied in all foreign countries, and of deciding whether those standards may be accepted as equivalent to those which New Jersey imposes or to those of other states whose licenses New Jersey accepts on a basis of reciprocity.
- *A-273 —To permit a person related to one believed to be a narcotic addict to petition the court requesting such person be admitted to a hospital for treatment of his addiction. *APPROVED*
- *A-276 —Requires District and Regional Boards of Education to appoint an Advisory Commission on Narcotics. *APPROVED*
- *A-278 —To authorize the Board of Medical Examiners to grant employees of a municipal hospital who hold M.D. or D.O. degrees an exemption from the licensing requirements of the act concerning licensing of physicians. *DISAPPROVED*, because MSNJ feels that it is contrary to the public interest to entrust patients to the care of unlicensed physicians other than interns and residents in approved training programs.
- *A-281 —To provide for proration of occupational disease awards under workmen's compensation against every employer during the 5 years immediately preceding the time the employee knew, or ought to have known, the nature of his disability. *NO ACTION*
- *A-290 —To require drivers of and passengers in motor vehicles equipped with seat belts to properly utilize such restraints and to permit the Director of Motor Vehicles to grant exemptions. *APPROVED*
- *A-293 —To prohibit the littering of waterways and adjacent shores and beaches and to regulate marine toilets and to repeal Chapter 13, P.L. 1954, and Chapter 170, P.L. 1958. *APPROVED*
- *A-314 —To provide that the Board of Public Utility Commissioners in considering new public utility franchise applications shall consult with the Department of Environmental Protection for determination of the effect of the franchise on the environment of the area to be served. *NO ACTION*
- *A-323 —To provide that no court may order the release of a person on his own recognizance if charged with the offense of treason, murder, kidnapping, manslaughter, armed robbery, rape, or sodomy if of the alleged victim is under 16 and the person is charged with offenses of carnal abuse, lewdness, impairing morals of a minor, or assault with intent to commit rape, carnal abuse, or sodomy. *NO ACTION*
- *A-331 —To provide that treatment for drug abuse consented to by a minor shall be considered confidential information which need not be reported except as required by the Controlled Dangerous Substances Registry Act. *APPROVED*
- *A-332 —To provide that the Commissioner of Health, with the advice of the committee, shall determine the total number of persons eligible for chronic renal disease care and treatment and shall include a sum necessary to carry out the provisions of this act in his annual budget. *APPROVED*
- *A-377 —To permit persons acquitted of violations of the disorderly persons law, misdemeanor or high misdemeanor to apply for expunging the records of all evidence of the arrest. *NO ACTION*
- *A-385 —To provide that contributory negligence shall not bar recovery in an action to recover damages for negligence resulting in death or injury to persons or property. *NO ACTION*
- *A-389 —To provide that a person shall not be disqualified from employment by the State or any of its agencies or subdivisions solely because of a prior criminal conviction unless there is a direct relationship to the position of employment and to provide that no governmental agency may disqualify a person from engaging in any occupation, trade, vocation, profession, or business for which a license is required solely because of a prior criminal conviction but a license may be denied if the crime for which convicted relates directly thereto. *NO ACTION*
- *A-397 —To provide that an act to cause miscarriage of a pregnant woman is justifiable when committed with her consent by a duly licensed physician acting within 24 weeks of the beginning of the pregnancy or under a reasonable belief such is necessary to preserve her life.

Note: Council had indicated a position of "disapproved." The Board directed that the bill be re-

ferred back to Council for a position in conformity with MSNJ's current stand on abortion.

*A-417 —To provide that no licensed chiropractor, not registered to use physiotherapy modalities, shall use such modalities. *APPROVED*

*A-438 —To provide that disability or death of a policeman or fireman resulting from respiratory diseases shall be presumed to be job related. *DISAPPROVED*, because it involves diagnosis by legislative enactment rather than by medical evaluation.

*A-450 —To provide for examination of public school pupils suspected of being under the influence of controlled dangerous substances. *APPROVED*

*A-457 —To authorize the Commissioner of Institutions and Agencies to establish a program for treatment and rehabilitation of drug addicts who are inmates of correctional institutions and to require freeholders to put such into effect in jails, workhouses, and penitentiaries of their counties. *NO ACTION*

*A-462 —To amend the law concerning operation of a motor vehicle while under the influence of narcotics to conform to the New Jersey Controlled Dangerous Substances Act. *APPROVED*

*A-464 —To provide that no person shall operate a motor vehicle on any highway of this State unless it carries for immediate use a hand-operated fire extinguisher and a portable emergency warning device. *NO ACTION*

*A-471 —To provide for degrees of criminal culpability for criminal possession of controlled dangerous substances. *NO ACTION*

*A-476 —To provide for the regulation of clinical laboratories in the New Jersey Clinical Laboratory Improvement Act. *DISAPPROVED*, because of recent amendment to the law (December 18, 1973).

*A-480 —To provide for licensing and regulating of pest control operators and to establish standards for fumigation under the New Jersey Pest Control Act. *APPROVED*

*A-489 —To require continuing education for registered optometrists in order to qualify for renewal certificates. *NO ACTION*

*A-500 —To require certain employees of pharmacists to register with the police before they have access to controlled dangerous substances. *NO ACTION*

*A-520 —To create a State Board of Acupuncture in the Division of Consumer Affairs to regulate the practice of acupuncture and the licensing thereof. *DISAPPROVED . . . WITH ACTIVE OPPOSITION IF THE BILL MOVES*, because this bill would license individuals to practice acupuncture, even though the scientific validity of acupuncture has not been satisfactorily established. Moreover, it would jeopardize the health and welfare of the public by failing to require that licensed acupuncturists meet all the

qualifications imposed by the State upon individuals who practice medicine, since obviously acupuncture would fall under the definition of medical practice as set forth in R.S. 49:9-1 et seq.

*A-521 —To provide a special workmen's compensation benefit to persons totally and permanently disabled who continue to receive weekly payments beyond the period required under the Workmen's Compensation Law and to dependents of an employee killed as a result of an industrial accident and to those receiving benefits under a special fund in existence. *NO ACTION*

*A-537 —To require all motor vehicles regularly used to transport three or more children to and from school to display a sign on the rear of the vehicle stating "Caution—Vehicle Transporting Children". *DISAPPROVED*, because it is impractical of enforcement.

*A-550 —To provide that a drug shall be deemed mislabeled if it does not contain a label with a date after which the quality or potency of the drug is not substantially equivalent to that on the date it was manufactured or produced and to permit the Department of Health to establish a list of expiration dates. *APPROVED*

*A-554 —To require the Turnpike, Highway and Expressway Authorities to submit environmental impact statements to the Commissioner of Environmental Protection before undertaking major projects. *NO ACTION*

*A-566 —To give the Pesticide Control Council veto power over the promulgation, amendment, or repeal of any regulation issued by the Commissioner of Environmental Protection as provided in the Noise Control Act of 1971. *NO ACTION*

*A-584 —To require school buses transporting school children to be equipped with emergency exits including roof exits with the standards to be prescribed by regulations of the State Board of Education. *APPROVED*

*A-586 —To provide that the rules and regulations of the State Board of Education for equipment on school buses shall include a requirement that the backs of seats shall be 28 inches high and padded with energy absorbing load distribution materials and restraint systems for the drivers' and passengers' seats. *APPROVED*

*A-588 —To provide for an examination of members of the police department before appointment thereto by a licensed practicing psychologist.

Note: Council had recommended "no action." The Board believes that psychiatric and/or psychological testing of potential police candidates is desirable. If the technical workmanship of the bill is not satisfactory, then appropriate amendments should be offered. The Board directed that this bill be referred back to the Council with these comments.

*A-594 —To require labeling of frozen food that has been thawed. *APPROVED*

- *A-600 —To provide that the Commissioner of Environmental Protection shall formulate rules and regulations concerning the labelling and prohibiting, conditioning, and controlling the sale of cleaning agents whose use may tend to cause adverse effects on man or the environment. *APPROVED*
- *A-603 —To clarify certain sections of Noise Control Act of 1971 and eliminate veto power of the Noise Control Council. *NO ACTION*
- *A-606 —To provide that a license may be suspended for any person prescribing or dispensing controlled dangerous substances in an indiscriminate manner or where the licensee reasonably knows that the substances previously prescribed or dispensed were used for illicit consumption or distribution. *APPROVED*
- *A-610 —To permit the Bureau of Children's Services, any physician, any superintendent or medical supervisor of a medical facility having as one of its objects the prevention of cruelty to children to hold a child in protective custody without court order for 48 hours or until the next court session. *APPROVED*
- *A-617 —To provide that no person, otherwise eligible under the Medical Assistance and Health Services Act, shall be denied eligibility for such benefits solely on the basis of the increased social security benefits effective September 1, 1972. *APPROVED*
- *A-644 —To provide that firemen suffering disability or death from a respiratory disease shall be presumed to have been related to the performance of duty. *DISAPPROVED*, because it involves diagnosis by legislative enactment rather than by medical evaluation.
- *A-655 —To amend the law prohibiting use of lead paint to prohibit certain additional uses and to provide a right of action and right to damages to persons affected. *APPROVED*
- *A-662 —To provide that the need for a certificate under the act providing for certification of x-ray technicians shall not apply to the technician who operates only x-ray equipment for dental radiographs and only under the direct supervision of a licensed dentist: to provide for 9 examiners, in place of 10, on the x-ray technician board. *APPROVED*
- *A-663 —To provide that the presumption that a motor vehicle violation defendant was or was not under the influence of alcohol shall not arise where the alcohol content in a defendant's blood was in excess of .05% but less than 0.12%. *APPROVED*
- *A-665 —To provide that when a local board of health adopts more stringent health or environmental protection ordinances or regulations than imposed by the Department of Environmental Protection it must obtain the approval of the Department. *APPROVED*
- *A-668 —To provide that any person, except a licensed physician who uses hypnosis for clinical treatment to relieve a person from symptoms of illness or unwanted habits is a disorderly person. *APPROVED*
- *A-686 —To provide for consent by minors to treatment for mental illness. *DISAPPROVED*. The bill, as written, is inherently unsound in that it calls for reliable judgment from an individual who by definition is incapable of rendering the same.
- *A-687 —To require the certification of diagnostic information for the use of the county court at final hearings on commitment of patients in mental hospitals where continued care and treatment beyond a 20-day temporary commitment is recommended. *APPROVED*
- *A-715 —To create the Genetic Disease Information and Prevention Act in supplementation of the act concerning marriage. *DISAPPROVED*, because although MSNJ approves the intent of the bill, it is presently untimely, over-simplified, and impractical of implementation because of lack of competent personnel and facilities.
- *A-717 —To prohibit manufacture, sale or distribution of recycled paper, cardboard, or paper products intended for use as containers or wrappers for food products. *NO ACTION*
- *A-720 —To authorize the State Board of Nursing to issue licenses for professional and practical nursing to former medical corpsmen of the United States armed forces who have successfully completed courses of instruction required to qualify for a rating of medical service technician. *APPROVED*
- *A-736 —To provide that the use of terms "cut-rate", "discount", "bargain" or similar connotation in connection with prices for prescription drugs and narcotics or fees or for services relating thereto shall constitute grossly unprofessional conduct under the act concerning the professional conduct and practice of pharmacists. *NO ACTION*
- *A-738 —To establish a "Contracts for Health Studio Services Act" to provide for certain requirements, limitations and prohibitions concerning such contracts; to require health studios to file bonds with the Director of Consumer Affairs and to provide for recovery of damages upon, and a penalty for, violations. *NO ACTION*
- *A-741 —To provide for a medical examination of school pupils who may be under the influence of drugs by any doctor where the parents or guardian consent. *APPROVED*
- *A-742 —To permit municipalities to license and regulate health studios, spas, gymnasiums and any other public facility used for instruction, training or assistance in physical culture, body-building, exercising, reducing, figure development or any other physical skill. *NO ACTION*
- *A-745 —To provide for the guaranteed performance of water and sewerage systems by applicants seeking subdivision approval in which water and sewerage is to be supplied by other than a public utility. *NO ACTION*

- *A-749 —To require every school bus, public or private, transporting children to and from school to be equipped with electric identification and warning lamps and appropriate signs or legends. *APPROVED*
- *A-756 —To exempt certain non-prescription drugs from the sales tax. *NO ACTION*
- *A-775 —To require all school bus drivers, public or private, to submit to a medical exam for the presence of alcohol, narcotics or habit-producing drugs. *APPROVED*
- *A-833 —To provide for the New Jersey Occupational Safety and Health Act. *APPROVED*
- *A-872 —To provide for regulation and licensing of persons engaged in a mail order drug distribution business. *APPROVED*
- *A-886 —To increase weekly maximum workmen's compensation benefits for permanent partial disabilities to 2/3 of average weekly wages of employees covered by the unemployment compensation law, to increase funeral allowances, to require free choice of physicians, to establish a Workmen's Compensation Board of Appeals and other changes. *APPROVED*
- Note: The Board changed the Council's position of "no action" to "approved."*
- *A-895 —Prohibits any impounded dog or animal to be sold for experimentation. *DISAPPROVED*, because it would hinder progress of scientific animal research, with jeopardy to the public welfare.
- A-967 —To provide that a minor, who is or professed to be addicted to a narcotic drug, and who consents to medical or surgical care, such consent shall be valid and binding as if the minor had reached his or her majority. *ACTION DEFERRED*, pending conference with sponsors of the bill.
- *A-970 —To provide that no court may order the release of a person on his own recognizance if charged with the offense of treason, murder, kidnapping, manslaughter, armed robbery, rape, or sodomy or if the alleged victim is under 16 and the person is charged with offenses of carnal abuse, lewdness, impairing morals of a minor or assault with intent to commit rape, carnal abuse or sodomy. *NO ACTION*
- *A-983 —To prohibit sale of baby foods containing monosodium glutamate and to provide that the rim of the cover of the container of baby food shall be completely enclosed in a metallic or plastic strip. *APPROVED*
- A-1014 —To repeal R.S. 45:14-16 which requires that a pharmacy prescription be strictly followed when it is being compounded, filled, dispensed or sold. *ACTION DEFERRED*, referred to Committee for Emergency Action.
- *A-1037 —To provide for the establishment of local and regional environmental protection agencies, define powers and procedures for their coordination with the Department of Environmental Protection and to appropriate \$50,000. *NO ACTION*
- *A-1049 —To provide that it shall be the duty of the board of education to provide suitable educational facilities for any pupil suspended or expelled from a public school for more than 7 days and that such pupil shall be examined and determined if he shall be classified as mentally retarded, communication handicapped, neurologically or perceptually impaired, emotionally disturbed, socially maladjusted, multiply handicapped or any other category of learning disability. *APPROVED*
- *A-1057 —To require the Department of Environmental Protection to adopt standards for the control of human excrement and all other hazardous and waste liquids to be enforced by local boards of health and to appropriate \$50,000. *APPROVED*
- *A-1082 —To provide that special need to intercept wire communications shall include a showing that the licensed physician, attorney-at-law, or practicing clergyman is personally engaging or was engaged over a period of time as part of a continuing criminal activity. *NO ACTION*
- *A-1097 —To create a Rutgers, South Jersey Medical and Dental College Planning Council. *DISAPPROVED*, because although the Society has consistently urged and strongly supported establishment of a third medical school in southern New Jersey as soon as possible, it approved and supported the incorporation of both existing schools—at Newark and Rutgers—under the title of "The College of Medicine and Dentistry of New Jersey" and under the control of one Board of Trustees. We hold that a third school should be under the same corporate title and the same Board's control.
- *A-1127 —To provide that any condition or impairment of health to a uniformed member of a paid fire department caused by hypertension, heart disease or tuberculosis shall be deemed to be an occupational disease. *DISAPPROVED*, because it involves diagnosis by legislative enactment rather than by medical investigation.
- A-1134 —To provide that non-compliance with motor vehicle standards set out in R.S. 7:27-15.4 re pollution standards by August 1, 1974, shall not be cause for rejection of motor vehicles upon inspection. *NO ACTION*
- *A-1145 —Prohibits the application of pesticides when there are persons in or near the area to be sprayed or dusted. *DISAPPROVED*, because it would impose extreme restrictions, which for all practical purposes would make the spraying of pesticides impossible with consequent disadvantage to the public welfare.
- *A-1146 —To permit qualified technical aides to perform limited medical procedures ordered by a responsible licensed physician. *APPROVED*
- A-1178 —To provide that the head or Chief Administrative Officer of the Department of Health shall be qualified by training and experience to perform the duties of his office; to delete the requirement that he be a licensed physician. *ACTIVE OPPOSITION*, because the obligations of the Commissioner

of Health demand that he be a licensed physician experienced in public health, disease patterns, and epidemiology. There are qualified applicants available both within the State of New Jersey and across the country. Therefore, there is no valid reason to downgrade the office.

A-1182—To prohibit use of Medicaid funds for abortion services except where a mother's life must be preserved.

Note: Council had recommended "no action." The Board directed that the bill be referred to Council for consideration in conjunction with S-528, bearing in mind the principle that Medicaid patients are to have full access to all necessary medical services.

A-1227—To remove the requirement that a person must be a citizen of the United States to receive a license to practice medicine or surgery in this State. *NO ACTION*

A-1239—To permit any first class county maintaining a maternity hospital to transfer and convey real property comprising the maternity hospital at a private sale and without consideration to any municipality within the county maintaining a hospital for the sick and injured. *NO ACTION* LAW c. 8 (1974)

To be noted and filed

*S-154 —To direct the Advisory Commission to the Division of Solid Waste Collection and Disposal Control in the Department of Health to review the technology and economics of the collection and disposal of solid waste and to recommend a program of research and development including experimentation with and demonstration of new techniques in solid waste collection and disposal and to appropriate \$50,000.

*S-302 —To extend Rider J—Blue Shield coverage to physical therapy performed in a doctor's office.

*S-462 —To authorize the Commissioner of Education to undertake a comprehensive study of secondary education programs and facilities available to handicapped children.

S-689 —To prohibit the construction of off-shore oil port apparatus and attendant pipeline and storage facilities.

S-721 —To add 6 members to the Nursing Home Administrators' Licensing Board and to reduce the terms of the members from 6 to 4 years.

*SJR-2 —To request the Division of Motor Vehicles to provide space on the driver's license for information concerning donations under the "Uniform Anatomical Gift Act."

*SJR-8 —To create a commission to devise the most practicable way of establishing a judicial mechanism for dealing with drug addicts and others impaired by their psychological condition.

*SJR-10—To authorize the Director of Motor Vehicles to provide space on all drivers' licenses for information concerning donations under the Uniform Anatomical Gift Act.

*SJR-11—To create a commission to study the nature, extent and amount of State-aid programs for mentally retarded persons.

*SCR-15—To create a commission to inquire into the condition of the nursing homes and the personal care facilities for the aged.

*SCR-39—To direct the Senate Committee on Institutions, Health and Welfare to study and evaluate the State's institutions, agencies, and services for the mentally ill.

*SCR-90—To reconstitute the commission to study and review the penalties imposed on drug users and the nature and scope of drug treatment programs.

*SR-2 —To memorialize the President of the United States and the Secretary of Health, Education, and Welfare, to restore suspended funding for the Community Mental Health Center Act.

A-86 —To require insurance companies to notify insureds making a claim of all the benefits, options, and alternatives available under the insurance contract.

*A-101 —To provide that any person who brings narcotic drugs or marihuana into this State unless authorized shall be guilty of a misdemeanor.

*A-280 —To exempt non-profit medical and clinical health care facilities operated by labor organizations and employer from property taxation.

*A-490 —To regulate the installation of garbage disposal units.

*A-592 —To provide that no life non-cancellable disability hospital expense or hospital and surgical expense insurance contract shall lapse by reason of default in payment of premiums during a strike of insurance agents where such premium is a charge on the agent's books and the agents are members of an organized unit.

*A-658 —To authorize the Commissioner of Education to undertake a comprehensive study of secondary education programs and facilities available to handicapped children.

A-968 —To create a special commission to study the problems of senior citizens including adequate housing, tax relief, improved health care and transportation and to recommend a comprehensive legislative program.

A-1184—To repeal Chapter 265, P.L. 1953, which makes it unlawful for a person, firm or corporation, not authorized by law, to place or assist in placing a child for adoption.

A-1215—To provide that it shall be unlawful for any person to operate a motor vehicle, except an emergency vehicle, on State highways at a speed in excess of 55 miles per hour or that posted.

A-1228—To require the Board of Pharmacy to compile a list of the 100 most used prescription drugs and to require drugstores to post the prices for such drugs.

A-1242—To prescribe a sentence of life imprisonment for anyone manufacturing, distributing or dispensing heroin in violation of the Controlled Dangerous Substances Act.

AJR-12—To create a commission to study acupuncture and the feasibility of licensing practitioners of acupuncture.

ACR-13—To create a commission to study the feasibility of establishing programs of pre-school training for physically handicapped children.

ACR-21—To memorialize Congress to extend Medicaid to cover prescription items for persons 65 years of age or older who are on social security.

ACR-22—To create a commission to study the procedures for licensing persons engaged in the medical, dental, and nursing professions, the shortage of adequate numbers of health care personnel and to consider the need for re-testing.

ACR-45—To make application to Congress to call a convention for the purpose of proposing an amendment to the United States Constitution reaffirming the "right of life" as a fundamental right which shall apply to all human beings.

ACR-47—To memorialize Congress to take favorable action on pending legislation for expansion of research into "crib death" disease.

ACR-56—To memorialize the President and Congress of the United States and the Administrator of Veterans' Affairs to establish a veterans' hospital in central New Jersey.

ACR-71—To memorialize the President of the United States to establish a veterans' hospital in South Jersey.

ACR-74—To create a commission to study the use of, sources of, and addiction to, narcotic and hallucinogenic drugs in colleges, universities, and high schools.

. . . Approved and referred to the President for implementation a recommendation from the Council on Legislation that the Board of Trustees appoint an Ad Hoc Committee to study and redefine the role and function of the Council on Legislation.

Prevailing Fee Areas (Medicare and Medicaid) . . . Approved the following recommendations from the Council on Medical Services:

That MSNJ approve the proposal to reduce the number of prevailing Fee Areas (Medicare and Medicaid) from eight to three.

Note: The over-all effect of this proposal is an increase in prevailing fees in the southern and northwestern areas of the state, a larger data base for each procedure and specialty group, and eliminates demographic inequities.

NBC Television . . . Approved the following suggestions from the Chairman of the Council on Public Relations:

(a) Meet with NBC to negotiate programs of balance and objectivity

(b) Meet with the medical reporters for *The New York Times*

(c) Develop a roster of medical personnel to be furnished to local and regional media

(d) Develop programs oriented to New Jersey, using MSNJ and CMDNJ as source

(e) Meet with state representatives of various media and include representatives from New York City and Philadelphia

(f) Arrange liaison regarding public relations among medical societies of New Jersey, New York City, Connecticut, and Philadelphia

(f) Consider input to the Sunday morning program produced by Joseph Michaels for NBC and the new network program from 5 to 7 p.m. that will replace the present endeavor.

Note: The above is in consequence of anticipated meetings with NBC to plan programing for future events that will present the medical profession in a more suitable image than that presented in the December 16, 1973 telecast of "Medicine, Where Does It Hurt?"

Physician Award for Community Service . . . Approved the following recommendation from the Council on Public Relations in response to an invitation for the Society to participate in the Physician Award for Community Service, sponsored by the A. H. Robins Company:

That cards be sent from the Board of Trustees to the presidents of component societies asking that names of suitable candidates from their specific counties be submitted to the Board for acceptance of the Physician Award for Community Service; and that the Award be presented at the time of our Annual Meeting

(Counties should list their reasons for recommending the physician, keeping in mind the award is for a physician's role in community services; and that the recipient must be living)

Note: Because time will not permit implementation of the above action for the 1974 annual meeting, the selection of a recipient will be deferred until 1975.

Public Relations Continuing Projects . . . Approved the following recommendation from the Council on Public Relations:

That the A. H. Robins Award and the Dr. Rodman E. Sheen and Thomas G. Sheen Award be added to the list of the Council on Public Relations' Continuing Projects.

Annual Meeting Guests . . . Directed that Governor Byrne of New Jersey be invited to attend MSNJ's Annual Meeting and that Senator Joseph L. McGahn (Atlantic) be invited to address the House of Delegates on May 13th.

Conference of Presidents and Presidents-Elect of County Medical Societies . . . Met with members of the 19th Conference of Presidents and Presidents-Elect of Component Societies (20), representing 12 societies, for discussion of the following topics: (1) authorization for physicians to obtain gasoline, (2) member apathy, (3) attendance of delegates at Annual Meeting, (4) New Jersey Foundation for Health Care Evaluation, (5) community health survey grants for county medical societies, (6) statewide MSNJ BC/BS/Rider J coverage for county medical society employees, (7) HMO's, (8) A-2317, which became law on December 18, 1973, and which provides that the failure of a doctor, dentist, or other person in licensed medical practice to disclose to a patient the cost of services paid to laboratories for tests shall be a misdemeanor,

(9) representatives of Board of Trustees at County Medical Society meetings, (10) communication on major issues being considered by the Society, (11) dates of the Annual Meeting, (12) "store front health facilities," (13) AMA Leadership Conference, and (13) a weekly one-page newsletter from MSNJ to the membership.

Economic Stabilization Program . . . Concurred in the action of the President in communicating to the Senate Committee on Banking, Housing, and Urban Affairs, and the House Committee on Banking and Currency, MSNJ's position that the Economic Stabilization Program has been and continues to be administered in a discriminatory and inequitable manner, as applied to physicians and the health care sector.

JEMPAC's Action . . . Noted that JEMPAC had sent a similar communication (to the one sent by the President of MSNJ) to several members of the Senate and House of Representatives regarding Phase IV Regulations.

Communicable Diseases in New Jersey

The following communicable diseases were reported to the Communicable Disease Control Program of the New Jersey State Department of Health during March 1974:

	1974 March	1973 March
Aseptic Meningitis	2	18
Primary Encephalitis	2	0
Hepatitis: Total	263	308
Infectious	91	257
Serum	64	51
Unspecified	108	0
Meningococcal Meningitis	1	7
Mumps	71	202
German Measles	111	619
Measles	1038	25
Salmonella	95	111
Shigella	40	62
Tuberculosis	144	
Syphilis-Primary & Secondary	60	
Gonorrhea	1260	

Note: Gonorrhea, syphilis, and tuberculosis are figures for the previous month.

Measles

New Jersey has been experiencing the most severe outbreak of measles in recent years. For the period September 1973 through March 1974, 2,557 cases of measles have been reported to the New Jersey State Department of Health. This compares with 83 cases of measles reported for a similar period in the previous year.

Certain areas have been harder hit than others. In the earlier months of the outbreak, many of the measles cases were found in Newark, Passaic, and especially Paterson. Most of the measles cases in these urban areas were found in preschool-aged children, and emphasized the problem that many children fail to receive adequate immunization prior to school entry, particularly where they do not receive regular medical care.

In recent months, the most serious problem

related to measles has occurred in Bergen County, so that in the period noted above almost half of the measles cases reported in New Jersey have come from Bergen County. Of particular concern is that 42 per cent of the cases in the State as a whole and 62 per cent of the cases in Bergen County have occurred in teenagers. Thus, we are seeing measles in an age group that had relatively little measles in the past.

With the decline in measles from the levels in the pre-vaccine era, exposure to measles in recent years is not nearly as great as before vaccine. Thus, many children are entering their teens without having developed natural measles. Many of these children were already in school when measles immunization entrance requirements were enacted, so that there are a large number of teenagers who have neither had measles disease nor measles immunization.

The State Department of Health recommends measles vaccination for all children over one year of age, including teenagers, who have never had measles immunization or measles disease. Since there is considerable evidence that measles vaccine given prior to one year of age is less effective, children who received measles vaccine prior to their first birthday should be reimmunized. In addition, children who received only killed measles vaccine should be reimmunized with the live attenuated vaccine.

In the past several months the New Jersey State Department of Health, in cooperation with local health departments and school districts, had been conducting extensive immunization programs, particularly in the areas seriously affected by measles. However, effective preventive programs involve continued efforts by physicians and health departments to immunize all children susceptible to measles, including teenagers. This is frequently accomplished by screening the records of children under physicians' care or clinic care and providing immunization for those children whose records show a deficiency in adequate immunization.

Hibernation, Outer Space, and Renal Insufficiency

What do black bears have in common with astronauts and patients with renal insufficiency? The answers are not all in yet, but early research results and speculation point up the value of comparative research with potential human applications.

According to R.A. Nelson of the Mayo Clinic Section of Nutrition and Department of Physiology and Biophysics¹, the winter sleep of the black bear, *Ursus Americanus*, is "a physiologic and metabolic marvel." The adaptations of this creature are such that it has a unique ability to exist without food or water for three to five months of the year, yet it can quickly arouse itself into a mobile, responsive stage, oriented and capable of self defense.

This singular animal model neither urinates nor defecates during hibernation, yet the female is capable of giving birth to cubs, producing enough calories to maintain herself and sufficient milk from her own metabolic utilization of body stores to support growth of the cubs. All of this is done without taking food or water.

Among the physiological observations, a small decrease in blood glucose, an increase in hematocrit, total protein, and leukopenia are noted. Bradycardia from 40 to 8 beats/minute, and reduction from 37 to 39 degrees C. temperature to 34 degrees C. occur. Interestingly, the electrolytes (sodium, potassium, and chloride) do not change and azotemia does not occur, because the bear discontinues the production of the catabolic end-products of protein metabolism. Urea nitrogen is apparently recycled back into the body pool so no net increase occurs. Thyroid hormone levels do not change.

The bear does not need to drink because the metabolism of body stores of fat produces an adequate amount of metabolic water (1.06

¹Nelson R. A: Winter sleep in the black bear. *Mayo Clin Proc* 48:733-737, October 1973.

grams of water is produced from 1 gram of fat.) During winter sleep, blood concentrations of cholesterol, triglycerides, and phospholipids increase, so bear milk is high in fat, containing ten times as much as human or cow's milk and more protein as well.

Application of all these observations is beginning to be made in anephric human beings awaiting kidney transplantation and for patients on long-term hemodialysis. By a careful balance of water intake in food and water of metabolism against water losses through insensible pathways, the need for dialysis of these patients has been postponed ten days. Food intake consisted of only enough protein daily to satisfy obligatory requirements, while calories came mainly from fat and carbohydrate. The patients remained ambulatory and in good clinical condition.

Short of training *Ursus Americanus* volunteers to be space travelers, the author suggests that a similar regimen might be programmed for space flights of two or three months in order to alleviate some of the food and water storage problems.

Therapeutic Drug Information Center

The New Jersey Regional Pharmaceutic and Therapeutic Drug Information Center is a project of the New Jersey Regional Medical Program. The Center serves as a source of intelligence on specific problems, articles, and reports concerning pharmaceutic and therapeutic information. A specialized library maintained by the Center contains complete information about U.S., foreign, investigational, and proprietary drugs, including their identification, availability, interactions, compatibility, side effects, dosage, adverse reactions, and so on.

The Center is staffed by trained pharmacists. Jack M. Rosenberg, Pharm. D., Associate Professor of Pharmacy and Director of Drug Information, Brooklyn College of Pharmacy,

is Project Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College is pharmacologist consultant. The service is free, available Monday through Friday from 9 a.m. to 5 p.m.—telephone (201) 445-4900, extension 132. Below are three questions and answers handled by the Center recently.

1. I am treating an obese hypertensive patient with guanethidine (Ismelin). Treatment with amphetamine-like drugs to control his exogenous obesity have resulted in poor blood pressure control. Which of the anorectic drugs if any, do not interfere with the activity of guanethidine?

The use of amphetamine and amphetamine-like drugs for their anorexiant effects as adjuncts in the management of obesity should be temporary, if at all. Generally, amphetamine-like drugs should not be prescribed for patients with hypertension because their sympathomimetic effect may aggravate hypertension.¹ It is known that the therapeutic effects of guanethidine may be severely antagonized by the concurrent administration of amphetamine or related drugs. The mechanism by which guanethidine elicits its anti-hypertensive effect is related primarily to the drug's ability to block the release of norepinephrine from the sympathetic nerve endings. This blockade is dependent apparently on the active transport of guanethidine into the nerve terminal. There is evidence to indicate that amphetamines have a strong affinity for the same site within the nerve ending as occupied by guanethidine. This affinity is sufficiently great to displace guanethidine.^{2,3} However, of that type anorectic drug, fenfluramine (Pondimin®) apparently differs in pharmacologic activity of the amphetamines in that it produces more central nervous system depression than stimulation. Further, fenfluramine has been reported to increase slightly the effects of anti-hypertensive drugs such as guanethidine, thus does not appear to aggravate hypertension. Fenfluramine is not recommended in severely hypertensive patients.^{4,5}

References

- ¹Anon: *AMA Drug Evaluations*. Publishing Sciences Group Inc., Acton, Massachusetts, 1973, p. 369.
- ²Anon: *Evaluation of Drug Interactions*. American Pharmaceutical Association, Washington, D.C., 1973, p. 70-71.
- ³Day M D and Rand M J: Evidence for competitive antagonism of guanethidine by dexamphetamine. *Brit J Pharmacol* 20:17-28, 1963.
- ⁴Anon: American Hospital Formulary Service, American Society of Hospital Pharmacists, Washington, D.C. 1973, 28:08.
- ⁵Anon: Fenfluramine—another appetite suppressant. *Med. Letter* 15:33-34, 1973.

2. Is special vitamin supplementation indicated during oral contraceptive therapy?

Several studies show that oral contraceptive therapy may result in the need for an increased intake of certain vitamins. The mental depression sometimes associated with oral contraceptives is believed to be in part due to inhibition of the decarboxylation of

tryptophan to serotonin. The supposed mechanism is that the estrogen component of the contraceptive induces a functional pyridoxin deficiency possibly by interfering with the binding of pyridoxal phosphate to its apoenzyme.¹ This depression might be prevented or alleviated by the administration of supplementary vitamin B₆.^{2,3}

Streiff⁴ and Roe⁵ have both reported folate deficiency in women using oral contraceptives. Oral contraceptives interfere with dietary folate absorption, and supplementary folic acid therapy may be required.⁶ Low serum B₁₂ levels were also found in women who were taking oral contraceptives.^{7,8}

The above studies suggest that vitamin B₆, folic acid, and vitamin B₁₂ may have to be supplemented in women who were taking oral contraceptives and not receiving sufficient amounts of these vitamins in their normal diets.

References

¹Blumblatt J M and Winston F: Pyridoxine and the pill. *Lancet* 1:832-833, 1970.

²Winston F: Oral contraceptives, pyridoxine and depression. *Am. J. Psychiatry* 130:1217-1221, 1973.

³Adams W P, et al: Effect of pyridoxine hydrochloride (vitamin B₆) upon depression associated with oral contraception. *Lancet* 1:897-904, 1973.

⁴Streiff R R: Folate deficiency and oral contraceptives. *JAMA* 214:105-108, 1970.

⁵Roe A D: Drug-induced deficiency of B vitamins. *NY State J Med* 71:2770-2777, 1971.

⁶Anon: American Hospital Formulary Service, American Society of Hospital Pharmacists, Washington, D.C. 1974, 68-12.

⁷Shojana M A: Effect of oral contraceptives on vitamin B₁₂ metabolism. *Lancet* 2:932, 1971.

⁸Wertalik F F, et al: Decreased serum B₁₂ levels with oral contraceptive use. *JAMA* 221: 1371-1374, 1972.

3. Which is the most effective topical sunscreening agent available?

There are numerous sunscreening agents available for topical use. These products possess varying degrees of effectiveness as well as advantages and disadvantages.

It is generally accepted that the 290 to 320 nanometer (NM) ultraviolet band causes virtually all sunburns. Physical sunscreens* (ointments containing such ingredients as zinc oxide and/or titanium oxide), are opaque to all wave lengths of light. They are effective but cosmetically unappealing.

The most popular sunscreens that help prevent sunburn are the "absorbers," which form a clear coat and

reduce the amount of ultraviolet rays reaching the skin.¹ The best among them are those containing aminobenzoic acid** (which is also known as PABA or para-aminobenzoic acid), esters of para-aminobenzoate*** (such as amyl para-dimethylaminobenzoate) or glyceryl para-aminobenzoate, and benzophenones**** (dioxybenzone, oxybenzone, and sulisobenzene).

The most effective sunscreening preparations of PABA contain 5 percent of the chemical in 55 percent to 70 percent alcohol.² Garcia, et al.³ indicated that PABA's properties closely approximate those of the ideal sunscreen as its absorption is between 290 and 320 NM (maximum 290 NM); it is resistant to chemical and photochemical changes; it has no apparent toxicity and has a very low incidence of sensitization and local irritation; and it forms both a surface filter and reservoir within the stratum corneum, which makes it effective even under conditions of sweating and swimming. The chief disadvantage of PABA is that it may stain clothing and skin.

A study by Langer, et al.⁴ compared 5 percent PABA in 55 percent alcohol and water with emollients (Pre-Sun) with other brand sunscreens containing esters of aminobenzoic acid as their active ingredients. The products containing the esters provided less complete protection and were more easily removed by sweating and swimming.

The benzophenones sunscreening agents are broad spectrum sunscreens and relatively non-sensitizing but are easily washed away by bathing and sweating. In 10 percent concentration these agents are especially effective in protecting individuals exposed to ultraviolet bactericidal lamps.

In conclusion, it appears from our search that 5 percent PABA containing preparations are the most effective and well tolerated sunscreening agents. For maximum protection PABA preparations should be applied one hour before exposure to the sun and reapplied after bathing.

References

¹Anon: Topical sun screening agents. *Med. Letter* 14:27-28, 1972.

²Anon: AMA Drug Evaluations, Publishing Sciences Group Inc., Acton, Massachusetts, 1973, p. 669.

³Garcia R L and Davis C M: PABA a more effective sunscreen. *Mil Med* 138:331-333, 1973.

⁴Langer A and Kligman A M: Further sunscreen studies of aminobenzoic acid. *Arch Derm* 105:851-855, 1972.

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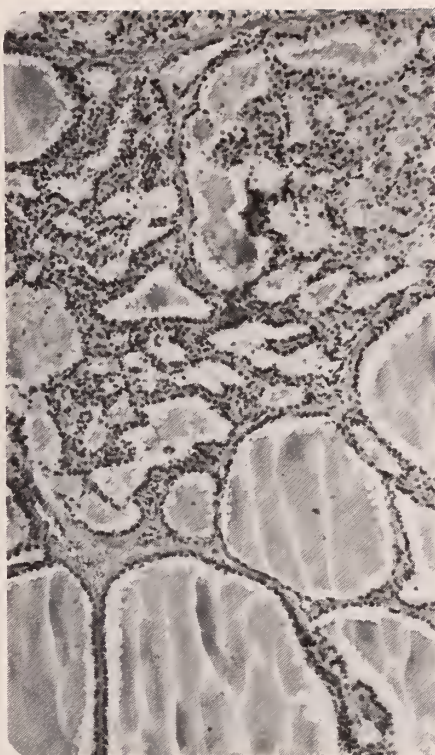
* Physical sunscreen combination preparations: A-Fil (Methyl anthranilate and titanium oxide), Solar Cream (PABA, titanium dioxide, magnesium stearate)

** PABA sunscreen preparations: Pabanol, PreSun

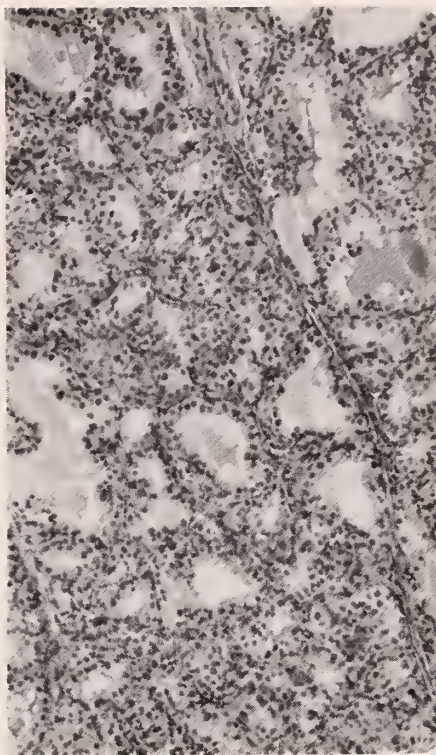
*** Esters of aminobenzoic acid sunscreens preparations; Block Out, Pabafilm, Sea and Ski

**** Benzophenones sunscreen preparations: Solbar, Sungard, UVAL

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*AVAILABLE ON REQUEST: Ronald I. Goldberg, M.D. & Franklin I. Shuman, M.D.
Double-blind study on the treatment of mentally confused patients. Reprinted
from the Journal of the American Geriatrics Society, Vol. XII, No. 6, June 1964.

PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

CARDIOLOGY—Maraboyina Sudhakar, M.D., 240 East Westfield Avenue, Apt. B-5, Roselle Park 07204. Osmania (India) 1968. Board certified. Group, partnership, hospital, solo. Available July 1974.

FAMILY PRACTICE—David F. Pierson, M.D., 4102 Dover Lane, Temple, Texas 76501. National University (Galway, Ireland) 1972. Partnership—no obstetrics. Available September 1974.

A. R. Tessler, M.D., 13342 Malena Drive, Santa Ana, California 92705. Hahnemann 1969. Solo or association. Available. Will purchase practice in south Jersey.

INTERNAL MEDICINE—Jose A. Eisma, M.D., 5947 Castle Run, San Antonio, Texas 78218. Santo Tomas 1963. Board eligible. Group, partnership, institution. Available July 1974.

Amir Ahmad, M.D., 78-40 164th Street, Flushing, New York 11366. King Edward (Pakistan) 1968. Group, partnership, solo. Board eligible. Available July 1974.

M. El-Kharboutly, M.D., 154 Belmont Avenue, Apt. 402, Jersey City 07304. Cairo University 1959. Board eligible. Institutional or solo. Available July 1974.

Syed A. Q. Jafri, M.D., 390 First Avenue, Apt. 11-H, New York 10010. Liaquat Medical College (Pakistan) 1965. Board certified. Group, partnership, solo. Available July 1974.

Puliadi Jothikumar, M.D., 660 East 98th Street, Brooklyn 11236 (Apt. 7C). Madurai Medical College (India) Board eligible. Group or hospital. Available July 1974.

Yi-Nan Chou, M.D., 1900 Hopkins Road, Apt. 3, Richmond, Virginia 23224. Taipei Medical College (Taiwan) 1967. Board eligible. Subspecialty, cardiology. Group, partnership, solo, or hospital. Available July 1974.

Kedar N. Kapoor, M.D., 1824 Country Club Drive, Cherry Hill, New Jersey 08003. K. G. Medical College, Lucknow (India) 1960. Subspecialty, gastroenterology. Board eligible. Group or partnership. Available July 1974.

M. Rostamian, M.D., 15 South 9th Street, Newark 07107. Isfahan (Iran) 1967. Board eligible. Partnership, solo. Available January 1975.

Ernest T. Bajpai, M.D., 111 East Mont Lane, Sickler-ville, New Jersey 08081. Prince of Wales (India) 1955. Board certified. Group, partnership, or association (preferably incorporated) Available July 1974.

ORTHOPEDIC SURGERY—Kiran J. Dave, M.D., 27 Abner Court, Bridgeport, Connecticut 06606. Baroda (India) 1967. Board Eligible. Group or partnership. Available July 1974.

Richard G. Traiman, M.D., 210 Locust Street, Philadelphia 19101. Jefferson 1967. Board eligible. Solo. Available July 1974.

PATHOLOGY—Pastor C. Gomez, M.D., Route 17-A, Greenwood Lake, New York 10825. Santo Tomas 1946. Group. Available.

PEDIATRICS—Gerardo J. Mayer, M.D., 8201 Henry Avenue, Apt. L-16, Philadelphia 19128. Buenos Aires 1967. Board certified. Group, hospital, comprehensive care center. Available September 1974.

Boris G. Kousseff, M.D., 1435 Lexington Avenue, 1-D, New York 10028. Sofia (Bulgaria) 1959. Board eligible. Subspecialty, genetics. Hospital or group. Available September 1974, or earlier.

Arvinda K. Dave, M.D., 27 Abner Court, Bridgeport, Connecticut 06606. Baroda (India) 1967. Board eligible. Group or partnership. Available July 1974.

SURGERY—Aftab A. Khan, M.D., 800 South Avenue, Apt. B-2, Secane, Pennsylvania 19018. Dow Medical (Pakistan) 1968. Board eligible. Group or partnership. Available July 1974.

Il Bong Kim, M.D., 950-49th Street, Brooklyn, New York 11219. Catholic Medical (Korea) 1967. Board eligible. Emergency room or institutional physician. Available July 1974.

Donald C. Martin, Jr., M.D., 340 South 19th Street, Philadelphia, Pennsylvania 19103. University of Pennsylvania 1962. Board eligible. Solo. Available September 1974.

Noel M. Doromal, M.D., 289 Slocum Way, Fort Lee 07024. Santo Tomas 1967. Board eligible. Group or solo. Available August 1974.

Riaz Hussain, M.D., 660 East 98th Street, Brooklyn 11236. King Edward College (Pakistan) 1958. Board eligible. Available July 1974.

Boonlua Lucktong, M.D., 26 Elkhorn Street, Welch, West Virginia 24801. Siriraj Medical School, Bangkok (Thailand) 1964. Board eligible. Group, partnership, hospital. Available July 1974.

P. I. Mathew, M.D., 97-15 Horace Harding Expressway, Rego Park, New York 11368. Trivandrum Medical College (India) 1965. Board certified. Group, Solo, or partnership. Available July 1974.

UROLOGY—Hau Hsien Chang, M.D., 316 Marengo, Apt. I-C, Forest Park, Illinois 60130. Taipei Medical College 1966. Group, partnership, or solo. Available August 1974.

Alexander R. Dimond, M.D., 227 Garfield Place, Brooklyn 11215. Downstate Medical Center 1969. Board eligible. Partnership or group. Available July 1974.

New Postage Stamp Honors Women in Medicine



An 18-cent United States postage stamp honoring Elizabeth Blackwell, M.D., the first woman doctor of medicine of modern times, was issued January 23, 1974, at Hobart College (formerly known as Geneva Medical College) in Geneva, New York, where Dr. Blackwell received her medical degree in 1849. The single-color stamp features a photograph of Dr. Blackwell in the center, and circled about it are the words, "Elizabeth Blackwell—First Woman Physician." It is intended as the denomination for surface rate for international mail. Dr. Blackwell and her sister (also a physician), unable to find a position on any hospital staff, established their own dispensary in New York City in 1854. Known as the New York Infirmary for Indigent Women and Children, it was the first medical social service of its kind and continued in existence until the 1940's. She was also the prime mover in the establishment of the first medical college for women, which came into being as an affiliate of Cornell Medical College in 1868.

Acknowledgment to St. Joseph's Medical Center

The Journal wishes to note that the high risk pregnancy studies recorded in two articles in the March 1974 issue of *JMSNJ*, "Monitoring High Risk Pregnancy: Part I—Antepartum" and "Part II—Intrapartum" by James P. Thompson, M.D., were from Saint Joseph's Hospital and Medical Center in Paterson, where Dr. Thompson was Director of the High Risk Pregnancy Clinic from September 1970 until August 1973, and where he continues to be associated as consultant.

HEW Proposal To Limit Costs for Prescription Drugs Under Medicare and Medicaid

In testimony before the Health Subcommittee of the Senate Labor and Public Welfare Committee on December 19, 1973, HEW Secretary Weinberger presented a proposal to limit reimbursement for prescription drugs under Medicare and Medicaid to the lowest price at which the drug is generally available. It is important that the proposal be carefully analyzed to determine whether, if adopted, it would: (1) achieve economies in these government programs; (2) interfere with the professional judgment of physicians and pharmacists; (3) assist or disadvantage program beneficiaries; and (4) encourage rather than discourage continued efforts by pharmaceutical companies to improve the quality of their products.

In making such an analysis one must, of course, be mindful of the Department's interest in reducing the cost of drug purchases financed by federal funds, and agree that this is an important and legitimate goal.

The proposal of Secretary Weinberger is stated to be based on the premise that FDA is able to assure the quality of all marketed drugs and that all drug products on the market, containing the same amount of the same active ingredients, are therapeutically equivalent. This is a questionable set of assumptions to say the least. It would appear instead that (1) all such drugs are not of equal quality; and (2) FDA is in no position today or in the foreseeable future to assure equivalency.

It would seem that until FDA is in a position to assure the safety, effectiveness, and equivalence of all drugs on the market, the necessary justification for limiting costs in the way the Secretary suggested does not exist. Presently available data with respect to inspections, recalls, and the failure of many producers to submit to FDA any proof of chemical equivalence

lency, bioavailability, or therapeutic equivalency makes it impossible to sustain claims with respect to FDA's current capabilities.

Physicians, pharmacists, and the general public would agree that the government should not interfere with professional judgment in choosing a particular drug product and identifying a preferred source. In the last analysis, only the prescribing physician is in a position to know which drug products have performed satisfactorily for his patients. Under the December 19 proposal, this basic tenet would be violated.

By regulating a preference for the lowest price source, the proposal would discourage competition in drug quality that has benefited patients by leading to improvements in product quality. It is important to consider the relationship between quality pharmaceuticals and source identification and to recognize the need to preserve meaningful incentives toward excellence in all aspects of pharmaceutical manufacture, control, and distribution.

For these reasons, it appears that the HEW December 19 proposal is inconsistent with the overriding principle of quality drugs and quality medical care and that it would fail to achieve the Secretary's goal of reducing reimbursement costs for prescription drugs for Medicare and Medicaid beneficiaries. The issue is not one of brand-name versus generic drugs. The issue is quality and source.

Foreign Medical Aid

Chosun University of the Republic of Korea has undertaken a program to establish medical clinics throughout the rural area. They are seeking supplies—medical items of any kind to equip these clinics are requested. Direct communications to Harry C. Ahlers, Coordinator, American-Korean Foundation, 345 East 46th Street, New York 10017. The Foundation will attend to shipment to the University. They will also acknowledge the value of the gift for income tax deduction purposes.

CMDNJ Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

If a single event can symbolize the fruition of a dream, the realities of continuing effort, and the course of the future, such an event will take place June 3rd at the Garden State Arts Center, Holmdel, with the first college-wide commencement of the College of Medicine and Dentistry of New Jersey—not just one or two of our schools, but all four. There's exhilaration in just talking about it. There may be a day when we will have five, and probably six, schools in our commencements, I refer to our contemplated medical school for South Jersey and the School of Allied Health Professions, but for now we are pleased to be four.

With the 1974 commencement, you might say that CMDNJ—only four years old in its present form—has come of age. It also marks the coming of age of our Rutgers Medical School, originally a two-year institution, which will be graduating its first four-year class and granting its first M.D. degrees.

The contrast with the first medical-dental graduation in New Jersey only 14 years ago is striking, indeed. That one, of course, was the first class of the Seton Hall College of Medicine and Dentistry, in 1960—35 in the dental school and 72 in the medical school. Seton Hall's medical/dental college was the forerunner of our present New Jersey Medical School and New Jersey Dental School, whose own first graduating classes were in 1965.

This June, CMDNJ will be hooding 143 new doctors of medicine, 64 doctors of dental medicine, and three doctors of philosophy, graduates of our Graduate School of Biomedical Sciences.

For the faculties and administration of CMDNJ, the commencement will have even deeper symbolic significance. It is a first coming together and it is also a going away—unity in objective and dispersion in service.

For this group of young men and women, at least, the commencement is the beginning of careers of service to the people of the state and nation. They will join together momentarily and then go their separate paths of medicine and dentistry. And that is what CMDNJ is all about. It is a unity of health-care disciplines—a gathering together and a dispersal.

One of the commencement program highlights will be the awarding of honorary degrees of doctor of science to Robert A. Good, Ph.D., M.D., and John Schoff Millis, Ph.D. Both are distinguished men of medicine. Dr.

Good is president of Sloane-Kettering Institute for Cancer Research; Dr. Millis, president of the National Fund for Medical Education.

All this would seem to add up to a lengthy proceeding, but it will not because our commencement committee has put together an interesting program with an eye on the clock. I tell you this because I would like to invite each and every member of the Society to join us on the occasion. It would give me, our deans, and our faculties great pleasure to have you participate in our coming together and in the new beginning for our graduates.

CLINICAL NOTES

Psoriasis and Phenformin Hydrochloride: A Report on Two Cases

Frederick Babad, M.D./Trenton

Case 1—A 48-year old obese woman was started on DBI® for her recently discovered diabetes. She had been suffering from marked psoriasis of her scalp as well as other parts of her body. After several weeks she noticed great improvement in her skin condition and after six months there is little left of her psoriatic lesions. She has been taking 50 mg daily.

Case 2—A 54-year old man, an alcoholic, who comes for treatment only after each bout with alcohol, presented with large patches of psoriasis on his elbows and knees. He was given one capsule of Meltrol-50® for three weeks on a trial basis. It has not been established whether he was a diabetic. On a return visit he reported that his skin had greatly improved while he was on that medication.

Though it is known that psoriasis shows spontaneous remissions, I believe that a trial of phenformin hydrochloride in the treatment of psoriasis merits consideration by other physicians.

Tuberculous Peritonitis in Association with Cirrhosis of the Liver

Vasanth Nair, M.D./Paramus*

As early as 1898, Osler¹ pointed out that cirrhosis of the liver predisposed to peritoneal tuberculosis. The frequency of the entity as reported in the literature has varied widely. Burack and Hollister² noted cirrhosis in 42 percent of patients with tuberculous peritonitis. Sochock³ found that only five out of the one hundred cases of tuberculous peritonitis studied by him had coexistent cirrhosis. Thiruvengadam, *et al.*,⁴ reported an 8 percent prevalence of tuberculous peritonitis in cirrhotic patients from India. The observations of the foregoing authors are in sharp contradistinction to that of Borhanmanesh, *et al.*,⁵ from Iran, who stated that none of their 32 patients with tuberculous peritonitis had cirrhosis. Neither did they encounter a single instance of tuberculous peritonitis in 300 cases of cirrhosis.

The present communication describes a patient with cirrhosis and ascites who was

*Dr. Nair is Medical Resident at Bergen Pines County Hospital in Paramus.

demonstrated to have tuberculous peritonitis as well. The latter diagnosis was made rather fortuitously, acid-fast bacilli having grown on culture of ascitic fluid.

Case Report

A 43-year-old female with a 20-year history of alcoholism presented with abdominal pain and distension and peripheral edema of recent onset. Her appetite was poor and she had noticed dark colored urine for a week prior to admission. Physical examination revealed a poorly nourished woman with ascites and hepatomegaly. Liver function tests were consistent with cirrhosis. Upper and lower gastrointestinal x-ray studies were normal. The ascitic fluid was a transudate containing less than 1 gram per 100 ml. of protein and 56 WBC/cu.mm, mostly lymphocytes. The tentative diagnosis was cirrhosis of the liver. The patient was treated with a low sodium diet with vitamin supplements. The ascites, however, gradually worsened. Three weeks after admission, the patient became disoriented, developed asterixis, and lapsed into coma. She died a week later.

Ascitic fluid culture grew *M. tuberculosis*, although the diagnosis of concomitant tuberculous peritonitis had not been entertained clinically. The ascitic fluid smear had been negative.

Patients with cirrhosis are more prone to infections, particularly tuberculous peritonitis;⁶ intercurrent⁷ infections pose a serious threat to such patients. Infections with enteric organisms causing bacteremia have been described in debilitated patients with advanced cirrhosis by Conn.⁸ The factors that predispose the cirrhotic patient to infections in general and to tuberculous peritonitis in particular remain largely enigmatic. Johnson, *et al.*,⁹ showed that alcohol inhibits leukocyte mobilization. Impairment of delayed hypersensitivity may also increase the susceptibility to tuberculosis. Poor nutrition may also play a role; even a short period of starvation has been shown to decrease resistance to infections in experimental animals.

The diagnosis of tuberculous peritonitis *per se* is no easy task. Burack and Hollister² have pointed out that coexistent cirrhosis of the liver makes this much more difficult. In his series, more than half of the cases (55 per cent) of tuberculous peritonitis in association with cirrhosis remained unsuspected. On the other hand, 85 per cent of cases of tuberculous peritonitis without cirrhosis were correctly diagnosed. Gonnella and Hudson¹⁰ stressed that a diagnosis of tuberculous peritonitis

should be considered in cirrhotic patients especially in the presence of fever and abdominal pain or tenderness. In patients with cirrhosis and fever, complications such as pneumonia and pancreatitis should first be ruled out. Where no such cause for the pyrexia can be demonstrated, tuberculous peritonitis is a distinct possibility.

Examination of the ascitic fluid is of value in the diagnosis of tuberculous peritonitis. Classically, the fluid is an exudate with a specific gravity greater than 1.016 and with protein content of more than 2.5 grams per ml. However, in the presence of coexistent cirrhosis, the fluid may be transudative in character. Burack and Hollister² stated that a cell count in excess of 250 WBC/cu. mm, in a cirrhotic patient with ascites, is presumptive of associated tuberculous peritonitis. On the other hand, an ascitic fluid polymorph nuclear count greater than 20 per cent makes the latter diagnosis unlikely. Bacteriological studies of ascitic fluid have largely been unrewarding in tuberculous peritonitis. The organisms are rarely identified in smears. Cultures have yielded more positive results particularly when large amounts of ascitic fluid are cultured. Using one litre of fluid, Singh, *et al.*,¹¹ achieved positive cultures in 85 per cent of their patients.

Peritoneal biopsy appears to be the best diagnostic procedure for tuberculosis peritonitis.^{4,12} Levine¹² reported 100 per cent positive results with this procedure in his series. Five of the six patients with tuberculosis peritonitis complicating portal cirrhosis observed by Thiruvengadam, *et al.*,⁴ showed positive results on peritoneal biopsy.

The present case illustrates the need for a high index of suspicion of concomitant tuberculous peritonitis in patients with cirrhosis of the liver. Since tuberculous peritonitis responds readily to therapy early in its course, it is imperative that the condition be detected at the earliest possible opportunity.

*A reference of 12 citations is available from the author.

ANNOUNCEMENTS

Graduate Lectures in Surgery

The following programs have been announced for the 1973-1974 "Distinguished Lecture Series" offered by the Department of Surgery of the New Jersey Medical School, CMDNJ:

May 13	Program on Oncology Walter Lawrence, Jr., M.D. Division of Surgical Oncology Medical College of Virginia
September 9	Surgery of Complications of Coronary Artery Disease W. Gerald Austen, M.D. Chief, General Surgical Services Harvard Medical School— Massachusetts General Hospital

Lectures are held at 4 p.m. in the amphitheater, 2nd floor, Martland Hospital, Newark. There is no charge. Guarded parking is available in parking lot M, 12th and Bergen Streets. For further information, please write to Eric J. Lazaro, M.D., Professor of Surgery, Martland Hospital Unit, CMDNJ, 65 Bergen Street, Newark 07107.

Graduate Courses in Medicine

The following schedule, in the series, "Advances in Medicine," has been announced by the Bergen Pines County Hospital, Paramus. Sessions are held in the hospital auditorium from 9:30 to 11 a.m. on the Wednesdays indicated and collation is offered at 9 o'clock. For further information write to the Office of Medical Education, Bergen Pines County Hospital, Paramus 07652.

May 15	Pancreatitis
May 22	Cellular Immunity
May 29	Ulcerative Colitis and Crohn's Disease
June 5	Clinical Pathology Conference
June 12	Annual House Staff Symposium
June 19	Graduation

Psychiatric Training Programs

At 9:30 a.m., on the Wednesdays indicated, the Saint Barnabas Medical Center in Living-

ston will present the following in a series of psychiatric training courses. This is part of a two-year program for psychiatrists, other physicians, psychologists, social workers, and professionals in allied fields. Appropriate credit will be allowed, as determined by MSNJ. Inquiries should be addressed to the Department of Psychiatry, Attention of Miss Hoffman, Saint Barnabas Medical Center. Livingston 07039.

May 15	Depression
May 29	Paranoia
June 12	Psychoneuroses
June 26	Psychoneuroses

Psychiatric Graduate Programs

Fair Oaks Hospital in Summit, in cooperation with the Academy of Medicine of New Jersey, has arranged the following programs in the series, "Current Topics in Psychiatry:"

May 15	Adolescent Psychiatry, Part I Martin Weinapple, M.D.
May 29	Psychiatric Care of Children Evelyn P. Ivey, M.D.
June 12	Hypnosis for Compulsive Eating, Smoking Roland D. Roecker, M.D.
June 26	Adolescent Psychiatry, Part II Martin Weinapple, M.D.

Sessions are held from 3 to 4:30 p.m. (Wednesdays) at the hospital, 19 Prospect Street, Summit. Further information may be obtained from Granville L. Jones, M.D., Director of Research and Education.

Medical Women's Association Dinner

On May 18, at the Governor Morris Inn, Morristown, the New Jersey Medical Women's Association will hold a fund-raising auction-dinner-dance for the benefit of medical research and scholarships for needy New Jersey medical students. The affair will honor Laura Morrow, M.D., of Passaic, a Past-President of the American Medical Women's Association. The activities will begin at 6 o'clock with

cocktails (dutch treat); the auction will take place from 7 until 9 p.m. and will be followed by dinner (champagne included) and dancing to the music of Barry Wood's orchestra. Tickets are \$50 a couple and reservations may be made with Mrs. Ben Rosenbloom, 176 West Mount Pleasant Avenue, Livingston 07039, telephone (201) 994-1515.

Family Psychotherapy for Non-Psychiatrists

From May 24 through May 26, Georgetown University Medical Center will conduct the first of four three-day graduate training programs in Family Systems Theory and Family Psychotherapy for non-psychiatrist physicians. The programs have been tailored to assist the practicing non-psychiatrist in developing a greater capability for handling the common emotional problems of the patients and families of patients in their daily practices. Sessions will be held on three consecutive days, one-third of the time devoted to didactic presentations on theory and technique, one-third to clinical demonstrations, and one-third to supervision—all three areas will be covered each day.

Meetings will be held at the Georgetown University Medical Center in Washington, D.C. Tuition is \$600, payable in advance. For further information and dates of subsequent sessions, please write to Joseph P. Lorio, M.D., Clinical Instructor, Department of Psychiatry, Georgetown University Medical Center, 3800 Reservoir Road, NW, Washington, D.C. 20007.

Symposium on Gynecology and Obstetrics

On Saturday, June 1, 1974, a symposium on obstetrics and gynecology will be held at the Mercer Medical Center, 446 Bellevue Avenue, Trenton. Sponsored by the American College of Obstetrics and Gynecology, the meeting will run from 9 a.m. until noon. Collation will be available prior to convening the session. The following program has been arranged:

Gynecological Psychology

Warren R. Lang, M.D., Assistant Professor Jefferson Medical College of Thomas Jefferson University, Philadelphia

Peritoneoscopy

James L. Breen, M.D., Director, Department of Obstetrics and Gynecology, Saint Barnabas Medical Center, Livingston

Fetal Monitoring

Marshall Klavan, M.D., Department of Obstetrics and Gynecology, Crozer-Chester Medical Center, Pennsylvania

The presentations in each area will be directed to both the physician working in this specialty and to the family practitioner and are approved for hour-for-hour credit, Category I, AMA Physicians Recognition Award, CME Program, MSNJ. For further information, please communicate with Ralph W. Ellis, M.D., 333 West State Street, Trenton 08618.

Plastic Surgery of the Nose

From September 7 to 11, 1974, at the University of Illinois Medical Center in Chicago, there will be a continuing education seminar on plastic surgery of the nose. The program, which will offer discussion and demonstration of current methods of esthetic and reconstructive surgery of the nose, is presented by the Department of Otolaryngology of the Abraham Lincoln School of Medicine of the University of Illinois, in cooperation with the American Academy of Facial Plastic and Reconstructive Surgery. For information and registration, please write to M. E. Tardy, Jr., M.D., Department of Otolaryngology, University of Illinois Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, Illinois 60612.

Workshop on Chronic Ear Disease

From October 2 through October 4, 1974, the Department of Otolaryngology of the Abraham Lincoln School of Medicine of the University of Illinois will offer a continuing education workshop in surgery of chronic ear disease. The program will deal with canal preservation in surgery for cholesteatoma and will include temporal bone dissection. Seminars will be held for discussion of the difficulties and complications of these techniques. Registration is limited to 50 and may be ac-

completed by writing to the Department of Otolaryngology, University of Illinois Hospital Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, Illinois 60612, attention of David F. Austin, M.D., chairman of the workshop.

Family Practice Board Examination

The next written examination for certification by the American Board of Family Practice will be held on October 19 and 20, 1974, in five centers throughout the United States. Information may be secured from Nicholas J. Pisacano, M. D., Secretary of the Family Practice Board at the University of Kentucky Medical Center Annex #2, Room 229, Lexington, Kentucky 40506. Physicians who anticipate taking the examination must file a completed application before June 15th.

Otolaryngologic Assembly

The annual otolaryngologic assembly of 1974 will be held from October 26 through November 1, 1974 and will offer, under the sponsorship of the Department of Otolaryngology of the Abraham Lincoln School of Medicine, University of Illinois Medical Center, a condensed basic and clinical program for practicing otolaryngologists as a special continuing education course. The sessions are designed to bring to specialists current information in medical and surgical otorhinolaryngology. Inquiries should be directed to Otolaryngology, P.O. Box 6998, Chicago, Illinois 60680.

A separate but correlated course on radiology in otolaryngology and ophthalmology will be held on November 29 and 30 at the Center. Information is available from Professor Valvassori, Radiology Department, Abraham Lincoln School of Medicine, P.O. Box 6998, Chicago, Illinois 60680.

Yellow Fever Vaccine in New Jersey

The U.S. Public Health Service makes yellow fever vaccine available at the following centers in New Jersey. Anyone who wishes yellow fever vaccine must call and make an appointment to be immunized.

Location	Telephone
Diagnostic Health Group 289 Market Street Saddle Brook 07662	(201) 845-6006
Maritime Medical Clinic 945 Avenue C Bayonne 07002	(201) 437-0400
Port Medical Center 104 North Avenue, East Elizabeth 07201	(201) 353-5160
CPC International Route 9W (International Plaza) Englewood Cliffs 07632	(201) 894-2368
Medical Dispensary Building 5 Newark Airport Newark 07114	(201) 961-2525
City Department of Health 44 Market Street Perth Amboy 08861	(201) 826-0290
Isabell McCosh Infirmary Princeton University Princeton 08540	(609) 452-3129

The Old Helping Hand Organization

Many of the younger doctors do not know that there exists in our state a unique helping hand organization, known as the Society for the Relief of the Widows and Orphans of Medical Men in New Jersey. This organization provides immediate financial assistance

to the dependents of a deceased member. It lends money without interest to assist widows and orphans of doctors who have known adversity.

For details, write to the Society at P.O. Box 95, Belleville, New Jersey.

LETTERS TO THE JOURNAL

Proposed Comprehensive Blood Banking System for New Jersey

February 6, 1974

Dear Doctor Krosnick:

The people of our State are aware of the need of safe blood. New Jersey offers opportunity for achieving an outstanding Statewide Blood Bank system now. Our State is well developed in roads, communications, and skills among its people. Our State is modest in size with a population density over-all that lends itself to developing such a system. Necessary resources are available; for example, a computer system and appropriate skills exist at Saint Barnabas Medical Center in Livingston which can be available for support of a state system.

Our people deserve the safest and best blood and blood products available. Elimination of commercial blood must be achieved but considered only a small step in the right direction—not an endpoint. It is time for New Jersey with its eight million people to receive quality service by people and facilities in the State rather than having to travel to New York, Philadelphia, or Boston for sophisticated medical services. Indeed, it is not known by many of our people that first-rate medical services are available in some institutions of our State that equal and surpass the services available in well-known New York City institutions. Our people deserve such services and need to know of their availability. Availability should be extended on a regional basis so that all people in the State can have access. A full-service, high-quality blood bank system can be readily developed as one of the early steps in establishing a unified, full-service, high-quality medical care system for the entire State.

The blood banking needs of New Jersey are considerable and the following recommendations are made:

1. A blood bank commission be established as a continuing body and include non-medical persons in its composition.
2. The blood bank commission be advised by a scientific committee.
3. The blood bank commission set standards that must be met for blood banks to be operable. A continuing system of obligatory and effective inspection must be functional to ensure full compliance with such standards. The inspection program be a function of the Department of Health.
4. An assured blood liability exemption policy be adopted, i.e., exclude liability beyond technical limits.
5. A unified state system be developed, including a limited number of regional blood banks in conjunction with full service blood banks in larger medical centers.
6. Computer technology be effectively used to control blood inventories with elimination of blood product wastage and maximal harvesting of therapeutic products derived from human blood.
7. Frozen blood capabilities be implemented to control inventory and provide quality of product optimal for many patients.
8. Elimination of commercial blood through organized recruiting of donors and implementation of 3, 6 and 7 above.
9. The state program include opportunity for development of new skills, technology, and services.
10. The state program include a continuing education program for medical technologists, physicians, nurses, paramedical personnel and the public.

(Signed) Paul T. Wertlake, M.D.
Director of Laboratories
St. Barnabas Medical Center

Oral Hypoglycemics, UGDP and FDA

February 21, 1974

Dear Doctor Krosnick:

I am pleased to report to you that it now appears we are nearing the end of our long dispute with the Food and Drug Administration with regard to the future labeling of oral hypoglycemic agents. Let me summarize for you the events which have occurred.

On June 4, 1973, this matter was presented by our attorney, Mr. Neil Chayet, before the United States Court of Appeals for the First Circuit. You may recall that both the Food and Drug Administration and the manufac-

turers have been enjoined from changing the label since November of 1972, when Judge Frank Murray found that there was a likelihood of irreparable harm to patients and physicians if the injunction was not granted. The government appealed the granting of the injunction to the Court of Appeals.

The thrust of Mr. Chayet's argument, contained in a fifty-page brief and presented orally on June 4, was that the Food and Drug Administration should be bound by its own regulations which state that the failure to reveal a material weight of opinion contrary to a representation contained in the labeling will render a drug misbranded, and that the government must not be permitted to take a partisan role in an area of continuing medical controversy. The thrust of the government's argument was that the regulation cited applied only to manufacturers when they submitted scientific results; that there was no substantial evidence controverting the UGDP results; and to have to reveal the existence of controversy would be confusing to physicians.

On July 31, 1973, the Court of Appeals released its decision. Dealing with the question of standing to bring the suit, the Court said that "while there may be some doubt whether the plaintiff doctors actually suffered injury, because of the impact of the label changes on their medical practice and on malpractice, there is no doubt but that the patient's interest is in the very center of the zone of interest to be protected or regulated." The Court then spent several pages of its opinion dealing with the question of the administrative process that had preceded the Court action. The Court concluded that the FDA had not had sufficient opportunity to review the impact of its own regulations on its practices and, since the use of the regulation as the chief weapon of the plaintiff's case made this a case without precedent, the Court lifted the injunction and returned the case to the agency with "more than a pious hope that a remand to the agency will not only be futile, but could well produce the most informed and responsible solution possible."

Following the decision, the FDA did not seek immediately to alter the labeling in line with earlier proposals and thus precipitate additional legal difficulties for both sides; instead, on October 25, 1973, it convened a meeting of all interested parties. For the first time since the controversy erupted, all gathered in one room to discuss the issues. Dr. Richard Crout, new director of the Bureau of Drugs, began the meeting with the comment that there is no draft labeling presently outstanding and the objective was for all parties, physicians and representatives of medical associations, as well as the traditional industry and government representatives, to work together to achieve labeling acceptable to everyone. He also added the statement that a new day had in fact dawned at the FDA.

This matter has enormous significance for all patients, for ourselves, and indeed for our profession. It marks one of the first times that a responsible and apparently successful stand has been taken before an administrative agency and in the courts against the abuse of federal administrative power in an area critical to medical practice.

(Signed) Robert F. Bradley, M.D.,
Chairman, Coordinating Committee
Committee on the Care of the Diabetic

School of Professional Psychology: Further Comment

March 19, 1974

Dear Sir:

The letter of Mr. Vincent A. Maressa, our Executive Director, explaining the action of the Board of Trustees in approval of the establishment of a school of professional psychology in the College of Medicine and Dentistry of New Jersey raises serious questions of importance to our membership and the public welfare.

In capsule form, if the Board, relying only on input from medical administrators with institutional orientation at variance with community-based physicians, and from well-

intentioned but non-medical executive directorship, can make judgments affecting many members of its Society, and the health of the citizens of New Jersey, then we are indeed in trouble. The psychiatrists of this State contend that they were not properly heard by the Board in relation to this issue, and, in anticipation of similar future problems, petition for better representation on the Board.

Psychiatry as a specialty has always occupied a mixed image among its brother physicians. This may be due to its somewhat mysterious practice, its involved ideology, its great need, and its apparent inaccessibility, all of which trouble its leadership and are in process of change. Despite this, psychiatrists contribute much in public and private service, perhaps more than most physicians, and are an indispensable arm of the public welfare. Because of its successes, Psychiatry has attracted many mental health purveyors in related lay fields, who ideally would be helpful in the total effort as co-workers, but who abnegate the medical model of mental health care. Psychiatry continues to adhere to rigid qualifications of medical degree, internship, residency and board certification. It, therefore, came as a great shock to psychiatrists when, without notice or explanation, they heard that the Board of Trustees approved the inclusion of a school of graduate psychology within the College of Medicine and Dentistry, and, as a greater shock when, after last ditch representations were made, the Board reapproved its decision.

The issues involved in the present action are not administrative, as in "better relationships between all individuals delivering health services," or interprofessional, as in the use of psychotherapy, or in the right of the Board to make decisions in disagreement of theory, as Mr. Maressa states. There is reason to believe, from his statements alluding to the usual PhD degree awarded to allied professionals in medical schools, that neither he nor the Board were aware that the College of Medicine and Dentistry was about to confer degrees of Doctor of Psychology and Doctor of Mental Health on graduates of the School of Profes-

sional Psychology after four years of training. Since the College trains medical students, interns and residents in psychiatry, requiring at least eight or nine years of training and graduating with a Medical Doctor degree, it is a question of opinion as to whether there would be a blurring of the leadership and competency roles in mental health care in the minds of the profession and the public. Further, apart from degree requirements, the proposed relationship between the Schools of Medicine and Psychology is peripheral, each being autonomous, and there would be little if any effective biological orientation taught to the psychologists. Their ability to distinguish between functional and organic disorders would not be materially benefited nor could their use of psychotherapy be reliably insured. The implication that the psychologists could be better regulated by training at a Medical College is untenable. As an autonomous and licensed profession, they have every right to pursue their own course. The only certain outcome is that psychiatrists alone would be the only ones capable and responsible to live with the consequences. By comparison, it would be as though the Medical College awarded corpsmen degrees of Doctor of Internal Health and Doctor of Surgical Health, without the limitations of medical assistantships.

Regarding the urgency of the decision which the Board was called upon to make, and for which no thought was given to question the feelings of member-psychiatrists, it has since come to light that a group of psychologists has been working for a school since 1969. They prevailed on the Legislature for funds to be allocated by the Board of Higher Education which then sought proposals from the College of Medicine and Dentistry and Rutgers University. The project of the School of Psychology and the proposals of both institutions were guarded as zealously as a national security issue. No involved psychiatrists were aware of the imminence of the final decision until the action of our Board of Trustees was reported to our Council on Mental Health on November 7, 1973. Psychiatrists then made representations of protest to both the Board

of Higher Education, the College of Medicine and to the Board of Trustees. It was the last-ditch effort to reach our Board, and the brief and unsatisfactory hearing of representatives on December 16, 1973 which led to reapproval of Dr. Bergen's proposal which gave rise to cries of "cronyism" and conflicts of interest. This could have been obviated before the first decision on October 21, 1973, long before the meeting of the Board of Higher Education on December 13, 1973, by consultation with our Council on Mental Health. The psychiatrists would not then have had to go it alone with the Board of Higher Education to succeed in establishing the School of Graduate Psychology at Rutgers University.

Under our Constitution the Board of Trustees has every right to vote as it sees fit in the interests of the medical profession. This is a serious duty and must include every safeguard to insure those interests, particularly where loud doubts are raised. In this instance, the interests of psychiatrists-members and the citizens that they serve were endangered through inadequate understanding. Happily, these interests were upheld by the Board of Higher Education. We hope sincerely that such situations will never befall our other medical colleagues.

(signed) J. Lloyd Morrow, M.D.

—And Reply

March 25, 1974

Dear Sir:

While ventilation of the issues is of prime importance and an absolute right of the members of MSNJ, I hope that in regard to the School of Professional Psychology we have not reached the point of hyperventilation. In any event, I am quite willing to address myself to Dr. Morrow's letter and would offer the following:

1. The "well intentioned but non-medical executive directorship" . . . deliberately played no role in the discussions, debate, or decision

because it was recognized *ab initio* as being "medical" in nature.

2. The overwhelming percentage of Board members are physicians in private practice and are community based.

3. Time was of the essence. However, in deference to the New Jersey Psychiatric Association and the MSNJ Council on Mental Health, the Board of Trustees reconsidered the matter and gave the aforementioned groups full and fair opportunity to present their view. Following this presentation, the Board of Trustees moved unanimously to reaffirm its prior decision in the interests of the profession.

4. The Board of Higher Education has awarded the School to Rutgers per the request of the psychiatrists, as Dr. Morrow indicated.

5. At the March 6, 1974 meeting of the Council on Mental Health of MSNJ we were informed that the Council and the New Jersey Psychiatric Association wish to take issue with the Department of Higher Education and Rutgers University because the degrees to be offered would confuse the public in that they are:

- (a) Masters in Mental Health
- (b) Doctor of Mental Health
- (c) Masters in Mental Health Administration
- (d) Doctor of Mental Health Administration

I believe these points demonstrate that the Board decision was based on fact, logic, and sound judgment.

(signed) Vincent A. Maressa
Executive Director, MSNJ

208th ANNUAL MEETING

May 11-14, 1974

Haddon Hall

Atlantic City

MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s).

May

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| <p>1 Current Topics in Psychiatry
 15 3-4 p.m.—Fair Oaks Hospital Summit
 29 (Sponsored by Fair Oaks Hospital and Academy of Medicine)</p> <p>1 Environmental Cancer in the Year 2000
 8 Unusual Causes of Heart Failure and Their Management
 15 Hemorrhagic Septic Shock
 22 New Development in Infectious Diseases
 29 ENT in Office Practice
 9-11 a.m.—Middlesex General Hospital, New Brunswick
 (Sponsored by Middlesex Hospital, AAFP, and Academy of Medicine of New Jersey)</p> <p>1 Coagulation Defects
 22 Eye Manifestations of Systemic Diseases
 29 Early Recognition of Brain Tumors
 8-9:15 a.m.—Helene Fuld Hospital, Trenton
 (Sponsored by Helene Fuld Hospital and Academy of Medicine of New Jersey)</p> <p>1 Thromboembolism
 8 Diseases Related to Sunlight
 15 Chemotherapy of Gastrointestinal Cancer
 22 Antibiotic Selection in Clinical Practice
 29 Ovarian Tumors
 10:30-11:30 a.m., Clara Maass Memorial Hospital, Belleville
 (Sponsored by Academy of Medicine of New Jersey and Clara Maass Hospital)</p> <p>3 Differential Diagnosis of Jaundice
 9 a.m.—St. Francis Hospital, Trenton
 (Sponsored by Academy of Medicine of New Jersey)</p> <p>6-10 Johnson & Johnson Visiting Professorship in Pediatrics—Immunology and Infectious Disease
 8 a.m.-5 p.m., Somerset Hospital, Somerville
 (Sponsored by Academy of Medicine of New Jersey, AAFP, and Somerset Hospital)</p> <p>7 Annual Dinner Meeting
 Chanticleer Restaurant, Millburn
 (New Jersey Dermatology Society)</p> <p>9 Annual Meeting
 9 p.m.—Carriage Trade, East Orange
 (Essex County Medical Society)</p> <p>11-14 Annual Meeting
 Atlantic City, New Jersey
 (The Medical Society of New Jersey)</p> <p>14 Proper Use of Antibiotics
 9 p.m.—Bayonne Hospital, Bayonne
 (Sponsored by AAFP and Academy of Medicine of New Jersey)</p> | <p>14 Hypertension
 8 p.m.—Paul Kimball Hospital, Lakewood
 (Sponsored by Paul Kimball Hospital and Academy of Medicine)</p> <p>14 Pediatric Seminar
 11:30 a.m.—Helene Fuld Hospital, Trenton
 (Sponsored by Helene Fuld Hospital and Ross Laboratories)</p> <p>15 Transfer Factor and Its Use in Bacterial and Fungal Infection
 11:30 a.m.—Veteran's Administration Hospital, East Orange
 (Sponsored by CMDNJ Pulmonary Disease Section and Academy of Medicine of New Jersey)</p> <p>15 Blood Gases
 11:30 a.m.—Helene Fuld Hospital, Trenton
 (Sponsored by AAFP and Academy of Medicine of New Jersey)</p> <p>16 Therapy Sessions
 Pascack Valley Hospital, Westwood
 (Sponsored by New Jersey Radiological Society and Academy of Medicine of New Jersey)</p> <p>16 Graduate Teaching Program
 4:30-6 p.m.—Somerset Hospital, Somerville
 (Sponsored by Academy of Medicine and Somerset Hospital)</p> <p>17 Clinical Endocrinology
 11 a.m.—Perth Amboy General Hospital, Perth Amboy
 (Sponsored by AAFP and Academy of Medicine of New Jersey)</p> <p>18 Oculoplastic Surgical Trauma of the Orbit
 9 a.m.—Eye Institute of New Jersey, Newark
 (Sponsored by Associated Eye Residencies of New Jersey, Medical School Affiliate Hospitals, and Eye Institute of New Jersey)</p> <p>20 Diagnosis and Treatment of Shock
 1:00 p.m.—Ancora Psychiatric Hospital, Hammonton
 (Sponsored by Academy of Medicine of New Jersey)</p> <p>21-23 Mid-Atlantic Health Assembly
 Atlantic City</p> <p>22 Psychiatry-Suicide
 1 p.m.—Trenton Psychiatric Hospital, Trenton
 (Sponsored by Academy of Medicine of New Jersey)</p> <p>22 Annual George Fried Memorial Lecture
 9:00 a.m.—Newark Beth Israel Hospital, Newark</p> |
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- 23 **Arthrography**
7:15-10:15 p.m.—Hospital Center at Orange
(Sponsored by New Jersey Radiological Society and Academy of Medicine of New Jersey)
- 23 **Abstracts on Nephrology**
9:30 p.m.—Beth Israel Medical Center, Newark
(Sponsored by Nephrology Society of New Jersey)
- 24 **Management of the Fetus at Rest**
CMDNJ—New Jersey Medical School, Newark
(Sponsored by New Jersey Medical School and Academy of Medicine of New Jersey)
- 29 **The Problem Fetus**
CMDNJ—New Jersey Medical School, Newark
(Sponsored by New Jersey Medical School and Academy of Medicine of New Jersey)
- 29 **Annual Awards Dinner**
6:30 p.m.—Chanticleer Restaurant, Millburn
(Academy of Medicine of New Jersey)
- 29 **Neurology Cases of Clinical Interest**
7-9 p.m.—Veterans Administration Hospital, East Orange
(Sponsored by CMDNJ Neurology Section and Academy of Medicine)
- June**
- 1 **Gynecological and Obstetrical Symposium**
8:30 a.m.—Mercer Medical Center, Trenton
(Sponsored by Academy of Medicine and Mercer Medical Center)
- 5 **Fluid and Electrolyte Problems in Pediatrics**
- 12 **Radiotherapy of Gastrointestinal Cancer**
10:30-11:30 a.m. Clara Maass Memorial Hospital, Belleville
(Sponsored by the Academy of Medicine of New Jersey and Clara Maass Hospital)
- 5 **Spinal Cord Lesions**
- 9 **Stroke Syndrome**
8-9:15 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Helene Fuld Hospital and Academy of Medicine of New Jersey)
- 5 **Stress and the Gastrointestinal Tract**
2-5 p.m.—Roche Laboratories, Nutley
(Sponsored by Academy of Medicine of New Jersey)
- 11 **Medical-Legal Aspects of Medicine in Surgery**
9 p.m.—Bayonne Hospital, Bayonne
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 12 **Current Topics in Psychiatry**
- 26 **3-4:30 p.m.—Fair Oaks Hospital, Summit**
(Sponsored by Fair Oaks Hospital and Academy of Medicine)
- 13- **Neckache and Backache**
- 15 **Saddlebrook Marriott Hotel, Saddle Brook**
(Sponsored by Committee for Continuing Education on Orthopedic Medicine)
- 17- **Techniques for Health Record Analyst**
- 21 **CMDNJ—Rutgers Medical School, Piscataway**
(Sponsored by Commission on Professional and Hospital Activities)
- 17 **Diagnosis in Neurology and Neurosurgery**
1 p.m.—Ancora Psychiatric Hospital, Hammonton
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 20 **Diagnosis of the Anemic Patient**
11:30 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 25 **Sarcoidosis**
8 p.m.—Warren Hospital, Phillipsburg
(Sponsored by Academy of Medicine of New Jersey)
- 26 **Neurology Cases of Clinical Interest**
7-9 p.m.—Veterans Administration Hospital East Orange
(Sponsored by CMDNJ Neurology Section and Academy of Medicine)
- 30 **Graduate Teaching Program**
4:30-6 p.m.—Somerset Hospital, Somerville
(Sponsored by Somerset Hospital and Academy of Medicine)

OBITUARIES

Dr. Herbert S. Boehm

One of Union County Medical Society's well-known members, Herbert S. Boehm, M.D., died on March 3, 1974, at the age of 61. Born in Germany, Dr. Boehm was a 1938 graduate of the University of Bern in Switzerland and completed his graduate training in psychiatry after emigrating to this country in 1940, becoming board certified in that specialty in 1958. He was senior attending and director of

the department of neuropsychiatry at Perth Amboy General Hospital, and a member of the staff at the Rehabilitation Hospital in North Brunswick, Kennedy Hospital in Edison, Roosevelt Hospital in Metuchen, and the Runnells Hospital in Berkeley Heights. He was a member of the Pan American Medical Association, the American Psychiatric Association, the Academy of Psychosomatic Medicine, and the American Group Psychotherapy Association. In earlier years, he had been associated with New York City Hospital, Goldwater Memorial Hospital of NYU, New York Medical College, and Vanderbilt Clinic in New York City.

Dr. Francis B. Brogan

One of Passaic County's senior surgeons, Francis Bernard Brogan, M.D., of Paterson, died on March 21, 1974. Born in 1907, he was a 1933 graduate of Georgetown University's School of Medicine. He returned to his native city and engaged in active practice there all of his professional life. Dr. Brogan was a Fellow of the American College of Surgeons and had been senior attending surgeon at St. Joseph's Hospital in Paterson. He was also a member of the prestigious New Jersey Society of Surgeons and of the Academy of Medicine of New Jersey. During World War II, he served his country for three years as a medical officer in the U.S. Army.

Dr. Anna I. Chorkawa

On February 14, 1974, Anna Ivanna Chorkawa, M.D., of Newark, died in New York University Hospital. Born in 1914 in the Ukraine, Dr. Chorkawa received her medical degree from Erlangen University in Germany in 1947 and soon emigrated to the United States and was accepted for internship at Bushwick Hospital in Brooklyn. Upon completion of residencies in pediatrics at Sea View Hospital on Staten Island and Babies' Hospital in Newark, she established a practice in Newark which she maintained to the present. She was on the active staff at St. Mary's Hospital in Orange and at Martland and United Hospitals of Newark, and was involved in community affairs in Essex County—the Baby-Keep-Well Stations at St. Michael's Hospital in Newark and at Orange Memorial Hospital in Orange, the Medical Infant Clinic of Newark, and the pre-school program in Newark. Dr. Chorkawa was a member of the American Women's Medical Association.

Dr. Horace W. Gerarde

Word has just been received that a plane crash on January 27, 1974, took the life of Horace W. Gerarde, M.D. and his wife while they were vacationing in Turkey. Dr. Gerarde was a 1948 graduate of the Medical School of the University of Wisconsin and spent all of his professional career in research and teaching in the field of toxicology and

environmental medicine. His most recent association was with Becton Dickinson and Company in Rutherford; previously he had been connected with Standard Oil of New Jersey Research Division, with the Bureau of Biological Research of Rutgers University, and with Fairleigh Dickinson University. He was a Fellow of the American College of Physicians, and a member of the American Association for the Advancement of Sciences and of the Industrial Medical Association. Dr. Gerarde was 55 years old at the time of his death.

Dr. Stanley J. Gobel

Stanley J. Gobel, M.D., a practicing physician in the Bound Brook area for more than 40 years, died on February 18, 1974, in St. Peter's Hospital, New Brunswick. Born in 1905, Dr. Gobel was graduated from Temple University College of Medicine in 1932 and was a general practitioner. Active in community affairs until retirement three years ago, he was school physician for the Borough of Middlesex and had also been physician to the Middlesex Board of Health.

Dr. Marshall Lieber

The former Director of Laboratories at the Wm. B. Kessler Memorial Hospital in Hamonton, Marshall Lieber, M.D., died on February 15, 1974, in the seventieth year of his age. A graduate of Jefferson Medical College in 1930, he took residencies in pathology in Freiburg (Germany) and in Vienna and returned home to become a member of the faculty at his alma mater. He remained there, with time out for military service, until 1956, attaining the position of Associate Professor of Pathology. From then until retirement in 1970 to Margate, New Jersey, Dr. Lieber was Director of Laboratories at Braddock General Hospital in Braddock, Pennsylvania. Within months after his arrival in Atlantic County, he accepted appointment as Director of Laboratories at the Kessler Hospital and transferred his medical society membership to MSNJ. Dr. Lieber was a Fellow of the College of Physicians and Surgeons of Philadelphia, and a member of the American Society of Clinical Pathologists, the American

Association of Pathologists and Bacteriologists, and the American Association of Blood Banks.

Dr. Edward S. Magee

On February 20, 1974, in Dixon, New Mexico, Edward S. Magee, M.D., a former member of our Atlantic County Medical Society, died, at the age of 66. A graduate of Hahnemann Medical College, class of 1933, Dr. Magee was a general practitioner with special interest in endocrinology and obesity. Except for three-years in the U.S. Navy during World War II, he served the people in Camden County until 1961. He had been associated with West Jersey Hospital in Camden and with St. Luke's Children's Hospital and Hahnemann Hospital in Philadelphia. He transferred to Pinal County Medical Society in Arizona and become associated with a group practice there until 1970, when he returned to the East and established practice in Atlantic City until his retirement in 1973. He was a member of the American Academy of Family Practice, and a certified member of the American Institute of Hypnosis.

Dr. Nathan Morris

A well-known general practitioner in the Plainfield area, Nathan Morris, M.D., died on March 9, 1974, in the 64th year of his age. Following graduation from University of Chicago Medical School in 1938, Dr. Morris practiced briefly in Union County before and after his tour of duty with the Army Medical Corps during World War II. He then located in Arkansas until 1962, when he transferred from the Arkansas Medical Society to New Jersey. He was associated here with the Muhlenberg Hospital in Plainfield.

Dr. Leslie E. Myatt

One of Cumberland County's senior surgeons, Leslie E. Myatt, M.D., died on March 8, 1974, in the eightieth year of his age. A native of Tennessee, he was graduated from Johns Hopkins College of Medicine in 1921 and settled in Bridgeton to practice surgery. He held numerous appointments on the staff at Bridgeton Hospital, culminating in his selection as

chief of surgery, a post he held for many years. Dr. Myatt was a Fellow of the American College of Surgeons and was active in local affairs until his retirement in 1970 because of failing health.

Dr. Abraham Simkin

One of Passaic County's well-known general practitioners, Abraham Simkin, M.D., died on March 22, 1974. Born in 1907, Dr. Simkin was a 1934 graduate of the Medical School at the University of Syracuse. In addition to family practice, he had special interest in gastroenterology and was on the medical staff at Beth Israel Hospital in Passaic. He was active in the affairs of his county medical society.

Dr. Sumner Wood, Jr.

At the untimely age of 44, Sumner Wood, Jr., M.D., a research scientist with Merck Institute in Rahway, died on February 14, 1974. A graduate of Harvard Medical School, class of 1954, he took residencies in pathology at Johns Hopkins School of Medicine, and New England Deaconess Hospital. In 1959, he accepted appointment at Johns Hopkins University Medical School, becoming Associate Professor of Pathology and Chief of the Cancer Research Laboratory there, and pathologist at the Johns Hopkins Hospital. He was also clinical professor of Pathology, New Jersey Medical School, CMDNJ. His long list of professional organizations included the American Association for Cancer Research, the American Association for the Advancement of Science, the American Association of Pathologists and Bacteriologists, the International Academy of Pathology, and the New York Academy of Science, to name a few. Dr. Wood was board certified in anatomic pathology and was the author and/or coauthor of over 60 articles on cancer research and was senior associate editor of the publication, *Cancer Research and Lymphology*. He held fellowships in the National Institutes of Health, the National Cancer Institute, the Atomic Energy Commission, and won the Cine Golden Eagle Award for medical motion picture photography, a field in which he was especially productive.

BOOK REVIEWS

Somewhere a Child Is Crying. Vincent J. Fontana, M.D.
New York, MacMillan, 1973. Pp. 268, (\$6.95)

Dr. Fontana, an activist in the study of the maltreated child, feels that many of his colleagues refuse to acknowledge the seriousness of the problem. He prefers the term maltreatment which is defined as any treatment by which a child's potential development is retarded or completely suppressed by mental, emotional, or physical suffering. This encompasses emotional deprivation, starvation, sexual abuse, and the battered child. The incidence is high; it is estimated that twenty per cent of all children's trauma (seen in emergency rooms) belongs in the maltreatment category.

Problem parents are classified as emotionally immature, neurotic or psychotic, mentally deficient or uninformed, disciplinarians, criminal-sadistic, and addicts. The offspring tend to become our juvenile delinquents and adult criminals. Case histories are presented to substantiate this concept. There is much criticism of the laxity and inefficiency of physicians, police, and governmental agencies in pursuing the situation.

The author proposes a national institute for child maltreatment which would encourage legislation to promote the rights of children, maintain a central registry of reported cases, research the root causes, and establish guide lines for the early recognition of abusing parents. He believes it is far better to improve the quality of life for all the living than to reduce the number of human beings. Criticism is expressed toward ecologists since Dr. Fontana feels that there is room "for all of us."

The book is geared for the layman and makes for easy reading about an uneasy situation.

Albert P. Rosen, M.D.

Lithium in Medicine. Joseph Mendels and S. K. Secunda,
Editors. New York, Gordon and Breach, 1972. Pp. 221.
(\$13.75).

Since 1949 lithium salts have had widespread use in the treatment of manic disease. Most psychiatrists are conversant with the use of this drug, however, most other physicians are not familiar with the indications, administration, hazards, and side effects of lithium.

In this volume is assembled significant data on the use of lithium in a rather unusual way. The editors have written brief and lucid sections on the various facets of the use of lithium salts, and each section is followed by reprints of previously published articles which support the statements in that particular section.

The volume is a comprehensive reference work and will not appeal to the individual practitioner for his office collection, but rather would be a useful addition to a hospital library.

Seymour F. Kuvin, M.D.

Hyperbaric Oxygenation: The Uncertain Miracle.

Vance H. Trimble. New York, Doubleday, 1974. Pp. 236.
Illustrated (\$6.95)

When Pulitzer Prize-winning writers tackle controversial medical subjects, what often emerges is an uneven disjointed collection of facts and half-truths with an over-all aura of sensationalism. This book fits the pattern. Upon reading it, the lay public gets the impression that organized medicine is depriving human beings of a life-saving treatment. Even the cover jacket is misleading in claiming: "This unorthodox miracle treatment, effective for over twenty diseases and injury conditions from senility and heart problems to gangrene, strokes, and burns . . . has saved the lives of thousands of people."

While Mr. Trimble presents a fascinating and accurate picture of the history of HBO in chapter five, the next chapter on the desperate attempt to save President Kennedy's premature son, afflicted with hyaline membrane disease, with HBO is nothing less than melodramatic. Chapters eight and nine present, objectively, the more recognized uses of HBO, but succeeding discussions of unproved effects on old age, sex, and IQ raise false hopes in the reader who has no scientific knowledge in this field.

Only one chapter is devoted to the hazards of therapy, which are many. The last chapter presents a fairer evaluation of the pros and cons of HBO. To the physician whose patients might be asking questions about HBO, knowledge of this book's contents might be valuable. However, it is not recommended for a balanced, scientific review of this controversial subject.

Ellis P. Singer, M.D.

Clinical Research For All. Cyril Maxwell. Northampton,
England (435 Wellingborough Road, NN1 4 EZ).
Cambridge Medical Publications, Ltd., 1973. Pp. 165.
(Softback—\$8)

This small, attractively printed and well-bound book is comprised of a foreword, a preface and 17 chapters and closes with an adequate three-page index.

In the foreword, written by Professor W. Linford Rees, M.D., a psychiatrist from the University of London, we are told that this book is "essential reading for medical students, doctors, whether they wish to carry out research or not, and is indispensable for anyone wishing to undertake the exciting and rewarding discipline of well-planned clinical research." I agree with enthusiasm but would add that it be made "must" reading for all members of the "health care team" (a dreadful but current cliché), because it offers an excellent review and overview of the methodology which a practitioner of any of the healing arts can use to evaluate his results.

This is truly a delightful book as a whole and every chapter is in itself a gem of an essay. I suggest that it be read once in toto, it took me about four and one-half hours (not using speed reading), and then place it on your bedside table for frequent rereading of your favorite chapters. My principal concern is that the persons who really need the knowledge in this book won't read it. The final paragraph is so good I offer it as finale to this review.

"This chapter, and indeed this whole book, makes no pretence at being fully comprehensive; much is omitted and much more is still to be learnt. If you are satisfied that you are now fully conversant with

any one aspect, you are being far too complacent and you should not embark on a research project. What you may find, and I hope you do, is that you now feel confident enough to start investigating the possibility of your undertaking some medical research, but keep studying books and keep studying the literature. When you find it inadequate, you are probably on to either a good field for research or a good field for constructive thought. Do not be afraid of either, but always remember that as medical scientists we have heavy responsibilities to carry and high standards to maintain. The major advances in medicine are frequently the result of chance observations but 'chance favours only those who know how to court her'."

Hugh F. Luddecke, M.D.

Medicare and Social Security: What You've Got Coming. Fourth Edition. Bruce Blossat. Garden City, New York, Doubleday, 1973. Pp. 114 (Paperback—\$1.95)

This 114-page paperback should be in the physician's waiting room or on the desk of his office aid. The section on Medicare has been updated so that many of the daily questions on eligibility and qualification, benefits, medical and hospital services, extended care coverage, and so on, can be quickly answered.

The style is directed toward the non-professional reader, but it will doubtlessly prove too difficult for the underendowed intellectually, the undereducated, and some elderly whose attention span may dwindle. *Medicare and Social Security* will serve best as a reference for the physician's staff to provide information, particularly to the Medicare recipient and his family.

Arthur Krosnick, M.D.

Chemical and Biological Aspects of Drug Dependence. S. J. Mule, Ph.D. and Henry Brill, M.D., Editors. Cleveland, CRC Press, 1972. Pp. 561. Illustrated. (\$39.95)

The purpose of this highly technical monograph, to provide the scientist with a reference text that provides the basic knowledge and background information that currently defines the chemical and biological basis of drug dependence, has been accomplished. The information on electro-physiology, neuropathology, and biochemical mechanisms, as they relate to drug dependence, give new understanding to those working in the field of drug dependence and substance abuse. Most helpful to the non-basic scientist are the chapters on the characteristics of dependence on and abuse of psychiatric drugs and the theoretical biochemical mechanisms for drug dependence.

Since there is multiple authorship providing the necessary expertise, there is some repetition of information and most probably, some omitted data that only an authority in a pre-clinical discipline could detect.

It is too bad that this was not available years ago when the drug scene was the "in" thing, not only for users but for those presuming to have the "final solutions" for the "epidemic," the so-called experts. The etiology of drug dependence is complex and largely unknown with the not too surprising disappointing results in treatment which proceeded on a trial-and-error basis. Additionally, there is need to correlate the chemical and biological aspects with the equally important sociological and psychological segments of the drug scene.

Edward A. Wolfson, M.D.

Lasers in Medicine. Leon Goldman, M.D. and R. James Rockwell, Jr., New York, Gordon and Breach, 1971. Pp. 385. Illustrated. (Price not stated)

An excellent account of the present uses of lasers in medicine is skillfully presented on this all-too-often overlooked subject. It has all you ever wanted to know about lasers and then some. It has the best physics and safety sections currently available.

Chapters are logically presented on history, physics, characteristics, output measurement, reactions in living tissue, holography, and safety of lasers, with clinical references to uses in ophthalmology, dermatology, oncology, surgery, and cancer research.

The laser (light, amplification by stimulated emission of radiation), as well as other new medical applications, alas, must suffer the average 12-year lag period before its applications become routine. However, very accurate accounts of today's use of the laser are evidenced in the next few examples.

Ten to twenty percent of the ophthalmologists are paying between \$800 and \$13,000 for a laser to photo-coagulate retinas and remove hemorrhaged capillaries in the eyes of diabetics. Dermatologists are using the laser to remove tattoos, birthmarks, heal wounds, and speed skin graft. Surgeons experimentally are drooling over the advantages of bloodless surgery, especially of the liver, lung, and heart by the laser.

Current research finds the laser used for canes for the blind, fiberoptic endoscopy for diagnosis and therapy, microlaser surgery from chromosomes to malarial parasites, and holography is used in the Fresnel Zone Plate which is possibly a future nuclear medicine imaging device.

Even though copyrighted in 1971, this book is a classic on the subject. A must for anyone interested in the past, present, or future uses of lasers in medicine. The book is intended for physicists, physicians, and bio-medical engineers, not specifically in that order.

Walter L. Robinson, M.S.
Radiological Physicist

Comments In Sports Medicine. T. T. Craig, Ph.D., Editor. Chicago, AMA, 1973. Pp. 230. (\$5)

Philosopher Paul Weiss in his book "Sport: a Philosophical Inquiry" called sport, a "terra incognita." It seemed, he wrote, as if no philosopher had ever been there before. In medicine also, sport is an uncharted land, only newly discovered and with the major explorations made by the experts in trauma.

This compilation of short basic presentations on problems in sports medicine is a simple and basic book on the state of the art. It is no accident, therefore, that the best sections are in what obviously is physical education and muscle physiology, and not really in medicine.

Aside from these sections and some basic statements of AMA policy on certain controversial subjects, the physician intimately involved in athletics will find little that is new and valuable.

It is however an excellent referral book for coaches and trainers who are looking for the conventional wisdom on their everyday problems.

George Sheehan, M.D.

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See Physician Vacancy Page 428

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Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated.

These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests

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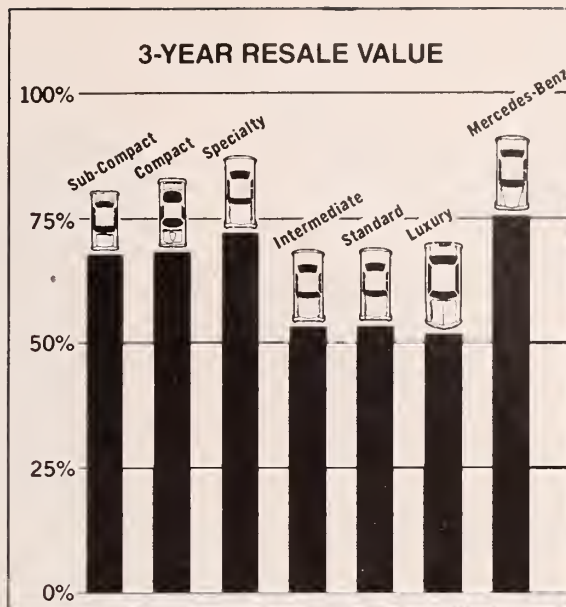
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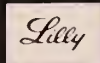
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EDITORIALS

James A. Rogers, M.D.



Depth and breadth in training and education, medical experience in clinical practice, public health and pharmaceutical research, and various leadership roles characterize the new President of The Medical Society of New Jersey, James August Rogers. A super-energetic individual, Dr. Rogers remains at all times a friendly, affable, pleasant "doer."

Born in Paterson, Dr. Rogers earned degrees at Muhlenberg College and Hahnemann Medical College, followed by internship at Newark's St. Michael's Hospital and the Margaret Hague Maternity Hospital in Jersey City. Internal medicine training at Sea View Hospital in New York and New York Medical College was interrupted by a three-year stint as a Naval officer assigned to the Marine Corps where he served with those who secured the beachheads in the first landings on several of the Pacific islands during World War II. This was followed by private practice and a year of fellowship at the Lahey Clinic.

Jim Rogers has been "where the action is" for the past two decades as Director, Medical Research Planning Division of Medical Affairs, Hoffmann-LaRoche; Assistant Professor, CMDNJ, in Preventive Medicine (New Jersey Medical School) and Community Medicine (Rutgers Medical School); and presently as Coordinator of the Office of Continuing Medical Education at Rutgers. Holding membership in numerous medical associations, Dr. Rogers is a trustee of the Academy of Medicine of New Jersey, past-president of the Passaic County Medical Society, and past-president of the associate staff, attending in medicine, and trustee of the Paterson General Hospital.

The author of fifteen publications, Dr. Rogers served as Commissioner of the Paterson Board of Health and was honored by the Passaic County Medical Society as its "Doctor of the Year" in 1971.

He was Chairman of MSNJ's Annual Meeting Committee for six years and has been Chairman of the Committee on Medical Education for the past five years.

Jim and his wife, Jane, have one daughter and two grandchildren. When he can get away from his many responsibilities, they head for the Jersey shore and their vacation home at Normandy Beach to recharge. There he spends lazy days "just watching the ocean" or pursuing his hobby, deep-sea fishing. He is a frequent and enthusiastic audience at the New York theater and a music lover, an appreciative listener and a self-taught performer on their home organ. A.K.

Emotional Support

To the cartoonist, the phrase "emotional support" must conjure up an image of a platform or brace, shaking itself as it supports someone or something. The words here, indeed, become one of the great clichés of American medicine. We not only provide emotional support, we also speak of "support-

ive therapy"—although usually in a patronizing way, as if it isn't real treatment. Often, indeed, supportive therapy becomes the gospel of despair—what we do when we can't do anything else.

If we think of it at all, we assume that emotional support appeals to the emotions and not to the reason. Thus, the pressure of a handclasp, the radiation of calm exterior, the movement of a chair closer to symbolize closeness, a steady look into the patient's face—strong, calm, relaxing, and solacing. Thus, in this nonverbal way, we give support.

It's a romantic picture, but we live in such a verbal world, that it seems unlikely that we can give the patient security without giving him a rationale—and this takes words. Strong silent men have gone with the strong silent pictures. The patient has fears and anxieties, and it just isn't enough to let him feel the strong silent handclasp. He wants to know *why* he has fears; and *whether* he has anything to worry about. He wants to get a *logical* explanation for his symptoms and he won't accept an explanation based on the assurance that poppa knows best, so don't ask. He needs reassurance, and it takes more than a calm and silent face to furnish it. It needs words. Of course, the words have to be given with an air of conviction; but this assurance without the words won't do the trick. Sometimes "emotional support" is thought of in terms of being always there (silently, no doubt) ready to back up the patient no matter what he does, to forgive him no matter what he says, to understand him no matter what happens. This, however, is the kind of support one expects from a mother—especially if you have the kind of face (or commit the kind of sin or do the kind of evil) that only a mother can love. The therapist's role has to seem a little more rational. (It doesn't perhaps have to be more rational, but it has to look that way to save the patient's face.) The patient won't abandon his fears without firm reassurance that he has nothing to fear; and this must be made to sound reasonable. Words, again! H.A.D.

Nancy Gamon Brennan



The daughter, sister, and wife of a physician, Nancy Gamon Brennan, came by her medical auxiliary leadership quite naturally. Born in Camden, Mrs. Brennan was graduated from high school in Merchantville, and earned a Bachelor of Arts degree in sociology and child psychology from Hood College. Two years later, she married James E. Brennan and shared his senior year at Jefferson Medical College. In the same way, Mrs. Brennan has participated in her husband's practice of otolaryngology and bronchoesophagology as a full-time, and now part-time, office assistant.

She took time along the way to mother five children, three of whom are in college and one about to enter a university in the fall. Her namesake, Nancy Lee, is a fifth-grader. Her father, Dr. Robert S. Gamon was President of the Camden County Medical Society (an honor also accorded her brother, Dr. Robert S. Gamon, Jr., who died while serving that office in 1973), while her mother was President of the Woman's Auxiliary of the same component society. Mrs. Brennan followed in her mother's footsteps, assuming many positions in the Camden Woman's Auxiliary until she became its President in

1967-1968. At the state level, prior to her election as The Medical Society of New Jersey Woman's Auxiliary President, Mrs. Brennan was Director and Associate Editor of *The Shingle* and Second Vice-President.

An enthusiastic spectator of sporting events, Mrs. Brennan includes bridge and golf among her active hobbies.

A.K.

To Cherish the Loser

When the Nazis governed Germany, it was their boast that "The Third Reich allowed no margin for error." But it is one of the distinctions of a free society that it has a place for losers. In some societies, they liquidate the unsuccessful political candidate. And the unfree society has no provision for broadcasting its errors. Whether in space shots or polio shots, the Communist motherland will not tell the world of its mistakes and failures, the way we do.

Those of us interested in research, for instance, have to respect the negative or fruitless experiment. If we scorn the loser, research is either paralyzed by fear of failure or corrupted by tampering with the results. Some foundations won't make grants unless, in a sense, the results of the research are guaranteed. Not literally, of course, but what they mean is that you can't get the grant unless you indicate what you're trying to prove. Few foundations would fund a project, the purpose of which is "to investigate the cerebellum."

Once the aim of the project is announced, what does the investigator do when, after the first week of investigation, it appears that the premise was wrong? Return the grant? Suppose he had told them in the first place that he was not out to prove anything, but rather to follow the trail wherever it led. If he had said that, you know the Foundation's answer would have been, "We have nothing but praise for your idea —."

Theories have sometimes proved wrong, yet have contributed significantly to the happiness and recovery of patients. A free society must cherish its losers, the way most Americans cherish the memory of Robert E. Lee. H.A.D.

Robert C. Anderson, M.D. 1908—1974

One of the most active and effective men to represent the practicing physicians of New Jersey, Robert C. Anderson, M.D., died on April 18, 1974, after twelve days of coma from a massive cerebrovascular accident. A lifelong resident of Newark, he obtained his medical degree from Georgetown in 1934, was an Air Force veteran of World War II, and became a specialist in obstetrics and gynecology.

In addition to his many professional activities, which are chronicled in the obituary on page 507 of this issue. Dr. Anderson was exemplary of the physician who takes an early interest in serving his profession through the activities of organized medicine. He started working on committees and then chaired them, completing all assignments in a studied and equitable manner. He was elected to the Council of the Essex County Medical Society and was responsible for creating committee activity in anticipation of the future needs of his profession. He created the first nursing education committee in New Jersey and made reports on foundation activities before they were generally known in the East. He followed OEO health care systems as President of the Essex County Medical Society in 1968, and sought to keep us abreast of the changes we are more aware of today. He served on many committees of The Medical Society of New Jersey and on its Board of Trustees.

We have always counted on Bob and his timely ideas and his level thinking on important issues. We shall miss him in our deliberations and we all feel a deep sense of loss for a man who rendered such distinguished medical service to our profession. J.J.McG.

The more physicians consider the hemodynamics of lowering blood pressure...

Most physicians now agree on the importance of reducing blood pressure in the hypertensive patient. But high blood pressure exists, of course, only as part of a complete clinical picture. The hemodynamic profile of well-established essential hypertension is characterized by elevated arterial blood pressure, normal cardiac output, and increased total peripheral resistance.

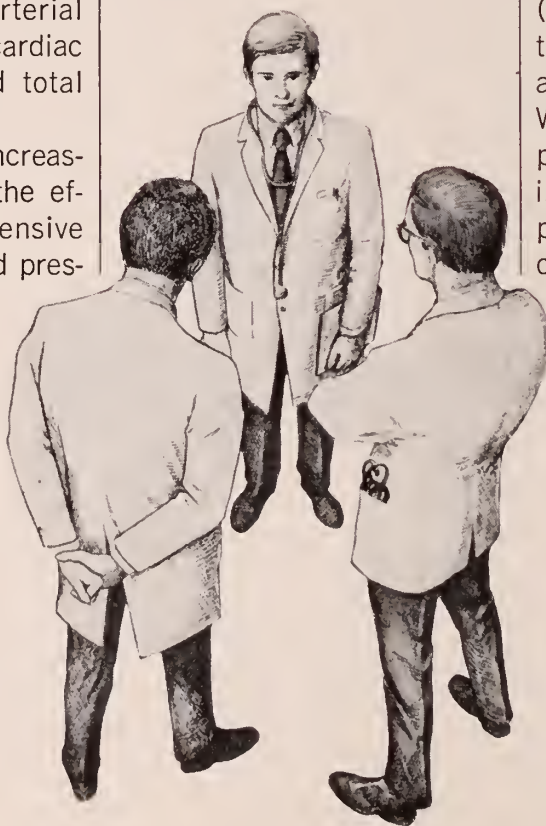
And so, physicians are increasingly concerned with the effects of an antihypertensive agent not only on blood pres-

sure itself but also on the hemodynamic pattern—in short, with the total effect of the drug. *Does it indeed help lower blood pressure effectively? Is peripheral resistance reduced? Are cardiac output and renal functions main-*

tained? And, also, is there likely to be drug-induced postural hypotension serious enough to pose a threat to the patient's cerebrovascular status?

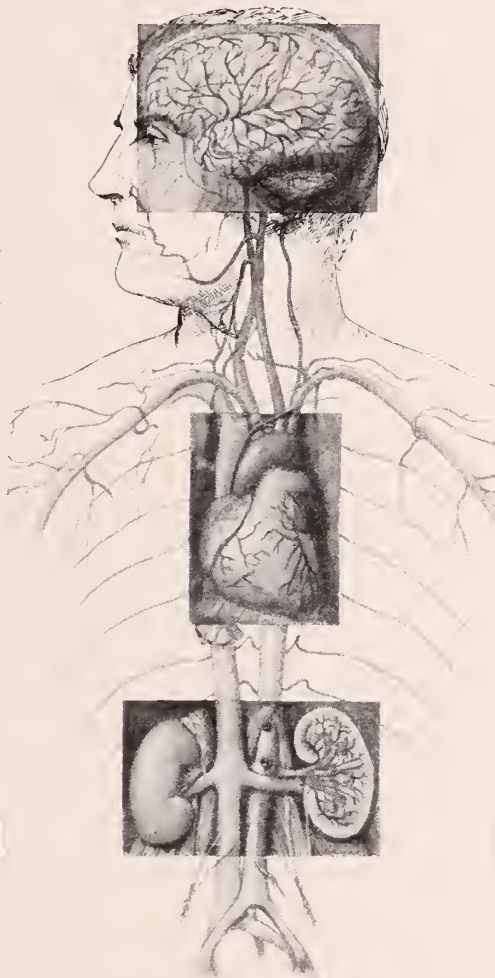
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Some patients on continuous methyldopa therapy may develop a positive direct Coombs test. For more details, see the brief summary of prescribing information.

Contraindicated in active hepatic disease and known sensitivity to the drug. Not recommended in pheochromocytoma or pregnancy. It should be used with caution in patients with a history of liver disease or dysfunction. Discontinue the drug if fever, abnormal liver function, jaundice, or acquired hemolytic anemia occurs.

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For a brief summary of prescribing information, please see following page.

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Contraindications: Active hepatic disease, such as acute hepatitis and active cirrhosis; known sensitivity. Not recommended in pheochromocytoma. Unsuitable in mild or labile hypertension responsive to mild sedation or thiazide therapy. Use cautiously in patients with history of previous liver disease or dysfunction.

Warnings: Acquired hemolytic anemia has occurred rarely in association with therapy with methyldopa. Should clinical symptoms indicate the possibility of anemia, hemoglobin and/or hematocrit determinations should be performed. If anemia is present, appropriate laboratory studies should be done to determine if hemolysis is present. Evidence of hemolytic anemia is an indication for discontinuation of the drug. Discontinuation of methyldopa alone or the initiation of adrenocortical steroids usually results in a prompt remission of the anemia. Rarely, however, fatalities have occurred.

Some patients on continued therapy with methyldopa develop a positive direct Coombs test; incidence reported has averaged between 10% and 20%. It rarely occurs in first six months of therapy, and if not seen within twelve months, is unlikely to develop with continued administration. Positive Coombs test is dose-related; lowest incidence occurs in patients on 1 g methyldopa or less per day. Reversal of the positive Coombs test occurs within weeks to months after discontinuation of methyldopa. Prior knowledge of a positive Coombs reaction aids in evaluation of cross match for transfusions. Patients with positive Coombs tests at time of cross match may exhibit incompatible minor cross match. When this occurs, an indirect Coombs test should be performed. If negative, transfusion with blood otherwise compatible in the major cross match may be carried out. If positive, advisability of transfusion with blood compatible in major cross match should be determined by hematologist or expert in transfusion problems.

Fever has occurred within first three weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first two to three months of therapy. Rare cases of fatal hepatic necrosis have been reported. Liver biopsy in several patients with liver dysfunction has shown microscopic focal necrosis compatible with drug hypersensitivity. Rarely, reversible reduction in leukocyte count with primary effect on granulocytes has been seen; reversible agranulocytosis has been reported. Methyldopa may interfere with measurement of creatinine by alkaline picrate method and of uric acid by phosphotungstate method. When used with other antihypertensive drugs, potentiation of antihypertensive action may occur.

Usage in Pregnancy and Childbearing Age—Not

recommended in pregnancy. In women of childbearing age, weigh potential benefits against possible fetal hazards.

Precautions: Perform periodic hepatic function tests and white cell and differential blood counts during first six to twelve weeks of therapy or in unexplained fever. Discontinue if fever, abnormalities in liver function tests, or jaundice appears. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, spuriously high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. Discontinue drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Anesthetics requirements may be reduced; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension may occur after dialysis because methyldopa is removed by this procedure.

Dosage should be limited initially to 500 mg daily when following previous antihypertensive agents other than thiazides. Do not exceed recommended daily dose of 3.0 g. Patients with impaired renal function may respond to smaller doses than patients with normal kidney function. Syncope in older patients has been related to increased sensitivity in those with advanced arteriosclerotic vascular disease; this may be avoided by lower doses. Tolerance occasionally seen either early or late, but more likely between second and third month after initiation of therapy; increased dosage or combined therapy with a thiazide frequently restores effective control.

Adverse Reactions: Sedation, usually transient, may be seen during initial therapy or when dosage is increased. Headache, asthenia, or weakness may be noted as early, transient symptoms. Symptoms associated with effective lowering of blood pressure, including dizziness, lightheadedness, and symptoms of cerebrovascular insufficiency, are seen occasionally. Angina pectoris may be aggravated. Symptoms of orthostatic and exercise hypotension may occur; if symptoms occur, reduce dosage. Bradycardia, nasal stuffiness, mild dryness of mouth, and gastrointestinal symptoms including distension, constipation, flatus, and diarrhea occur occasionally; these can be relieved by reducing dosage. Nausea and vomiting have been reported in only a few patients. Sore tongue or "black tongue," pancreatitis, and inflammation of salivary glands may occur.

Weight gain and edema occur infrequently; if edema progresses or signs of pulmonary congestion appear, discontinue drug. Rarely, urine exposed to air may darken due to breakdown of methyldopa or its metabolites. Other rare reactions include breast enlargement, lactation, impotence, decreased libido, skin rash, mild arthralgia, myalgia, paresthesias, parkinsonism, psychic disturbances including nightmares, reversible mild psychoses or depression, reversible thrombocytopenia, drug-related fever and abnormal liver function studies with jaundice and hepatocellular damage (see Warnings and Precautions), rise in BUN, and a single case of bilateral Bell's palsy.

Supplied: Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000.

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ADDENDUM

Let's make blood pressure "required reading" for all physicians.

With recent estimates that about 23 million Americans have high blood pressure—and that half of them are not even aware of it—detection of the problem in asymptomatic persons has become an issue of national importance.

Family physicians are being urged to take blood pressure readings as a matter of office routine, regardless of the presenting complaint or the reason for the visit. And because many people do not see a family physician for relatively long periods of time, some experts are suggesting that ophthalmologists, gynecologists, dermatologists, orthopedists, psychiatrists, dentists, school nurses, family planning counselors, and other health-care personnel make blood pressure reading a routine part of every examination or consultation.

Of course, a diagnosis of hypertension cannot be made on the basis of a single reading, but routine blood pressure readings can uncover potential trouble in a certain proportion of patients. And when trouble is suggested, further evaluation can be pursued more effectively.



**Blood pressure—
"required reading"
for all physicians.**

ORIGINAL ARTICLES

The price for preserving our voluntary system in the delivery of health care will be costly, not only in dollars, but in terms of time, energy, and vigilance. Here are a few of the problems we have to solve.

Freedom Is Worth Fighting For*

James A. Rogers, M.D./Paterson

It is my privilege to be honored by you to serve as the President of The Medical Society of New Jersey for the ensuing year. It is with deep humility and pride that I acknowledge the trust and confidence you have placed in me. I shall do my best to carry out the duties and obligations of this office in the highest tradition of the Society. I am fully aware of the task that lies ahead. This task can only be accomplished with the total cooperation and support of the members of the Board of Trustees, the members of the various committees that serve the Society, as well as the input and cooperation of every member of the Society.

I would be remiss if I did not recognize the loyalty and tremendous amount of work that our most competent staff applies itself to daily throughout the year in handling the problems that confront the Society. Furthermore, I wish to acknowledge the excellent support and cooperation of the Woman's Auxiliary and their activities in making our Society a strong one. Last, but not least, it is only fitting and proper that we acknowledge the patience, support, and cooperation of the physicians' families who must stand by so that the physicians can carry out their duties and responsibilities. In this vein, I particularly wish to thank my wife, Jane, who has been so patient and has stood by my side throughout these very exciting years. Further, I acknowl-

edge the support, cooperation, and encouragement offered by the members of the Board of Trustees, the Past-Presidents, and the many members throughout the state as I have called upon them for their opinions and advice and requested their service in various capacities. To all of you I owe a debt of gratitude.

The first and foremost goal and objective of every physician in New Jersey and in this great Nation of ours is the delivery of quality health care to its people. Secondary concerns that may be of a philosophical, personal, provincial, or other nature must be directly or indirectly related to this goal and objective. It becomes evident that to satisfy our prime goal, all subsequent activities must be directed to this end.

As physicians, privileged to practice medicine, we have noted many changes in the past several years. Some have brought about improvements, others have appeared as encroachments to the voluntary system of the delivery of health care, while still other changes have been unsuccessful trials.

In 1867, Disraeli said "Change is inevitable. In a progressive country change is constant." This phenomenon is not limited to medicine.

*Inaugural address on the occasion of the author's induction into the Presidency of The Medical Society of New Jersey. Presented to the House of Delegates, second session, May 12, 1974, Atlantic City.

It is present in all fields of endeavor, be it government, law, education, medicine, the labor field, economics, or business. The challenge is to find a better system to deliver service to the public.

Medicine's specific challenge is the delivery of quality medical care. There are strong forces within the government, as well as from other sources, planning and laboring to develop such systems. Competition is and always has been present. In some instances the physician's input has been considerable and influential, while in other instances he has had little or no input.

Let us pause and reflect that in those areas where we have demonstrated involvement and influence, we have preserved and defended those principles of health care in which we believe. In other areas, where our input and involvement were questionable or lacking, we have found that others have taken the lead.

In recent years, the medical profession finds itself constantly at the crossroads where decisions as to its future direction must be made. This is because of the rapid pace of life, which presents further new problems and unique events. What are these events and what are these problems? It is fair to say that there are many. Among these are the increase in technology and the introduction of vast amounts of new knowledge which cause us to reassess and evaluate our own knowledge and skills almost constantly.

Continuing medical education is presently under scrutiny. The traditional forms of continuing education have been voluntary—attendance at lectures, meetings, conferences, and reading journals. They have not adequately provided us with successful methods. It seems that there is dissatisfaction with the results that have been achieved from these traditional methods. There is an increasing demand for a new type of system which will more effectively achieve the goal of continuing medical education, namely, improvement of the quality of patient care. Presently, the

medical audit system is proposed and is being used in many areas in this State and in the Nation.

Continuing health education has now become an important part of the daily routine of physicians, nurses, and allied professional personnel, as well as for our patients and the public. For the latter, the aim is to obtain and maintain optimal health, while avoiding needless medical crises.

Educational activities are being undertaken at an ever-increasing rate at all levels—in community hospitals, by voluntary organizations in the community itself, by specialty societies, and by institutions of higher learning.

Another problem facing us today is the attitude of the public we serve regarding the delivery of health care. Although almost all physicians are engaged in the delivery of health care to capacity and in many instances to over-capacity, the public is less than satisfied. This emphasizes the need to take a realistic view of the delivery of health care, and to upgrade that portion of the system that needs improving. It does not necessarily mean a complete alteration of our present system. There is evidence both in this State and nationally that steps are being taken to correct some of the existing problems. The physician supply is increasing, the family practitioner is returning to the scene, and nurses and allied health personnel, along with physicians, are working more closely together as a health team.

In the past few years, we have experienced concern on the part of the public in the affairs of medical economic management. This has been brought about by such factors as the inflationary spiral, price control, tight money control, rising interest rates, and the desire to increase the minimum wage and, hopefully, living conditions. Labor and management groups are constantly striving to determine ways, within this framework, to produce more, earn more, and offer more benefits while working fewer hours.

Compare the vastly different problems with which the health providers are faced. The demands on health care providers are greater now than ever before. The system within which they operate demands individualization of services and cannot be transformed to one of mass production. I question whether the consumer would accept mass-production techniques even if feasible.

The influence of developing technology and knowledge on health care delivery is such that it is possible to produce "cause and effect." Research may lead us to a system requiring experienced personnel and expensive equipment, yet the system may be obsolete overnight as a result of new discoveries which may moderate the diseases which have been and are plaguing mankind.

All of us are concerned with the judgments made by some legislators and third-party payers in matters that influence the health care delivery system. Experience has demonstrated that the results of some of their activities were immature and incomplete, and at times quite unfair and costly.

The health care providers along with others who are concerned must grasp the opportunity to develop greater efficiency in the system. We must demonstrate the high quality of leadership presently that our forefathers exhibited in the past. We must approach this problem together with our hospital colleagues, the nursing profession, allied health personnel, and third party payers as a team. The health care industry is no longer a "cottage industry," but ranks among the largest in this Nation.

In July, 1965 Medicare became law. The aims of this program, as well as the emphasis by Congress and the public, were directed to alleviating the economic burden of illness which overwhelmed the elderly. It did not interfere in any major way with the traditional organization and operation of the health care system. The law did call for quality standards for providers to which we paid lip service because many people felt that the

government should not get involved in the way physicians manage their patients, or how clinical practice was evaluated, or in such matters as overlapping health services and continuing medical education. Many people felt that the Federal third-party programs essentially were mechanisms for underwriting the cost of care. We did *not* get involved. Perhaps we should have been more involved at that time

Today, a completely different atmosphere exists. The public, congressional committees, the press, and even spokesmen for providers, including the physician community, are ready for changes. Perhaps such action as the Comprehensive Health Planning legislation has had its impact. Such planning, as you know, now requires 51 percent consumer input and allows 49 percent provider input. Such legislation and regulation involves itself with planning, certificates of need, and regionalization of special services. We are now involved.

In the early part of 1965, John Millis stated in his report: "any profession, any service profession which serves the American public has only two alternatives. It can either control itself or it will be controlled by government."

In October, 1973 we were presented with PL 92-603 (the Bennett Amendment), the legislation involving peer review, utilization of services and facilities, as well as cost containment. We have until January 1, 1976 to demonstrate our effective working operation, known as the Professional Standards Review Organization. In essence, it calls for an objective accountability of performance. The law presently concerns itself with the government-sponsored Medicare and Medicaid programs. It could well be that its concern may expand and involve other third-party payers in the future.

In New Jersey, the Foundation for Health Care Evaluation has been formed for the licensed physicians in the State. Eight areas have been designed. The physicians of our

State have been deeply involved in the organization of the Foundation, the development of the PSRO areas, and the work required to operate these areas successfully. More and more physicians are becoming involved.

If we wish to preserve the voluntarism that still exists, to fight for what we believe is in the best interest of our patients, to be responsible for the quality of medical care they receive, then it will be necessary for us to participate actively in all matters that affect the delivery of health care in this State. I am proud of the involvement the members of The Medical Society of New Jersey have demonstrated in several of the problem areas previously mentioned. Their concern, interest, and input as physicians are shown by their active participation in their hospitals, county medical societies, and communities, encompassing both state and national issues. The delivery of quality health care is demanding a great deal more from us. The public we serve is demanding from us that as experts

we offer them a sound system of health care delivery.

These are a few of the problems before us, the problems which we have to solve, and it is our responsibility to develop the best solution. Physicians have faced problems of even greater magnitude in the past and I am confident that together we will successfully meet our present challenges. However, this can only be accomplished by the dedicated cooperation, and involvement of each physician and by always keeping in mind our prime responsibility of quality patient care. The price for preserving our voluntary system in the delivery of health care will be costly, not only in dollars, for dollars can accomplish but so much, but in terms of time, energy, and vigilance.

We have come a long way; our predecessors have accomplished much; much more remains to be accomplished. Voluntarism is freedom and freedom is worth fighting for.

346 East 34th Street

Fall in Physician's Parking Lot Not Compensable

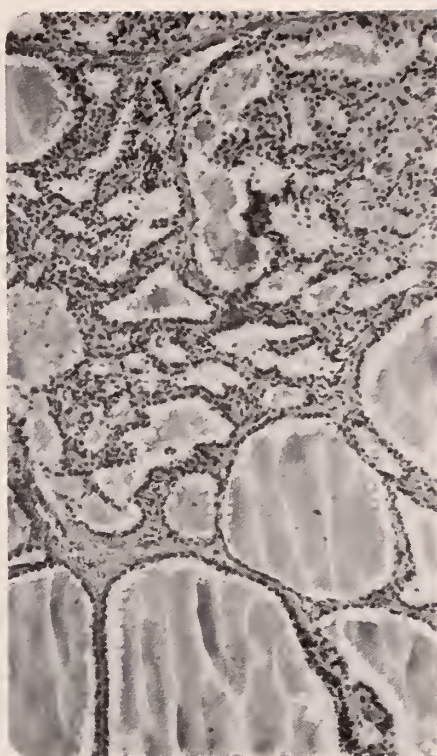
A patient's fall in the parking lot of a physician who was treating him for a work-connected injury was not an accident related to his employment, an Indiana appellate court ruled.

The employee, a truck driver, was drawing temporary disability benefits under the Workmen's Compensation Act because of a leg injury. He was also receiving medical care that was paid for by his employer. Because he was not satisfied with the physician who was treating him, the employee consulted a specialist, who performed surgery. The specialist's services were also paid for by the employer. When the employee arrived at the special-

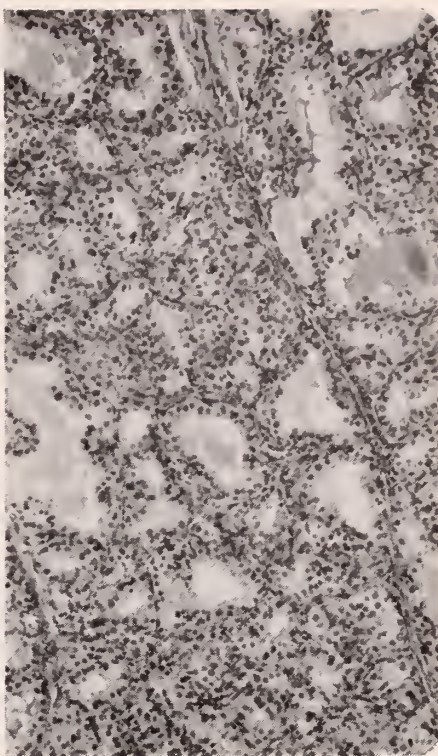
ist's office for a follow-up appointment, his crutches slipped on ice in the parking lot. He fell, allegedly sustaining an arm injury. The employee filed an application for workmen's compensation for the injuries sustained. The Industrial Board denied the application, and the employee appealed to the court.

As a matter of law, the court said, the record did not lead solely to the conclusion that the employee was performing the duties of his employment at the time of his injury. Therefore, the court affirmed the decision of the Industrial Board.—*Smith v. National Liquors, Inc.*, 301 N.E. 2d 783 (Ind. Ct. of App., October 17, 1973)

perthyroidism
chronic
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*AVAILABLE ON REQUEST: Ronald I. Goldberg, M.D. & Franklin I. Shuman, M.D.
Double-blind study on the treatment of mentally confused patients. Reprinted
from the Journal of the American Geriatrics Society, Vol. XII, No. 6, June 1964.

The authors have added two new cases of a rare malignancy to the world literature, along with a review of the subject.

Alveolar Soft-Part Sarcoma

**Stanley S. Fieber, M.D. and
Robert W. Sherry, M.D./West Orange***

Alveolar soft-part sarcoma is noted for its bizarre manifestations. Its histogenesis is controversial and obscure. Recognizing the exact nature of these tumors to be uncertain, Christopherson, *et al.*⁶, in 1952, designated the term "alveolar soft-part sarcoma." Shipkey, *et al.*¹², in 1964, after studying the ultrastructure of 31 samples by electron microscopy, firmly established alveolar soft-part sarcoma as a distinct histological entity. Stout and Lattes¹¹ suggested the descriptive title "malignant organoid granular cell tumor," which was also noncommittal as to cellular origin. The basic characteristics of granular cell myoblastomas and malignant nonchromaffin paragangliomas (formerly classified as alveolar soft-part sarcomas) are enough to disassociate them from alveolar cell soft-part sarcoma.⁹

Differences in terminology and diagnosis preclude accurate determination of the incidence of alveolar soft-part sarcoma in the world literature. Up to 1966, 84 cases were reviewed.^{9,10} Since 1966, 12 more cases have been reported in the English literature.^{1-5,8,11} Two personal cases are added, making a total of 86 documented cases.

Alveolar soft-part sarcoma is generally found in skeletal muscle, most commonly the extremities and especially the right thigh. A unique 21:12 laterality favoring the right side was reported.¹⁰ In reviewing the 14 most recent cases, (12 from the literature and 2 original cases) a 9:4 ratio favoring the right side prevailed (one tumor was over the sacrum). A predominance was also recorded with regard to incidence and sex: females, 34 cases;

males, 17 cases.¹⁰ Review of 14 recent cases almost conforms to a similar 2:1 ratio. A disproportion between the ages with respect to sex was found in the literature—male: average 30; female: average age 40.¹⁰ The youngest age recorded was a 10-month old male.¹⁰

Grossly, the tumor is well defined, pseudocapsulated, firm, and yellow-pink. It may be homogeneous, or striped with yellow bands, giving a honeycombed effect. The size varies from 2 to 23 cm. in diameter.

Microscopic appearance is uniform with groups of 4 to 50 cells forming pseudoalveolar or organoid structures. The component cell is large, clear, and polyhedral. Thin reticular fibrils surround cell groups. Numerous blood vessels are present in connective tissue. Few mitoses and little nuclear pleomorphism are seen. Hematoxylin and eosin stain show eosinophilic cytoplasm. PAS stain shows red colored intracytoplasmic crystals. Invasion of blood vessels by nests of tumor cells is not infrequent.

The differential diagnoses include the following tumors: malignant granular cell myoblastoma, nonchromaffin paraganglioma, chemodectoma, adrenal rest tumor, hepatoma, nephroma, alveolar rhabdomyoblastoma, and clear cell carcinoma.

One case report⁴ showed a close relation between myositis ossificans and alveolar soft-part sarcoma but no evidence that it arose from the same injury. Trauma merely calls attention to a pre-existing mass.¹⁰

*From the Department of Surgery, Montclair Community Hospital, (NJ) where Dr. Fieber is Director of Surgery; as well as Associate Clinical Professor of Surgery, CMDNJ, New Jersey Medical School.

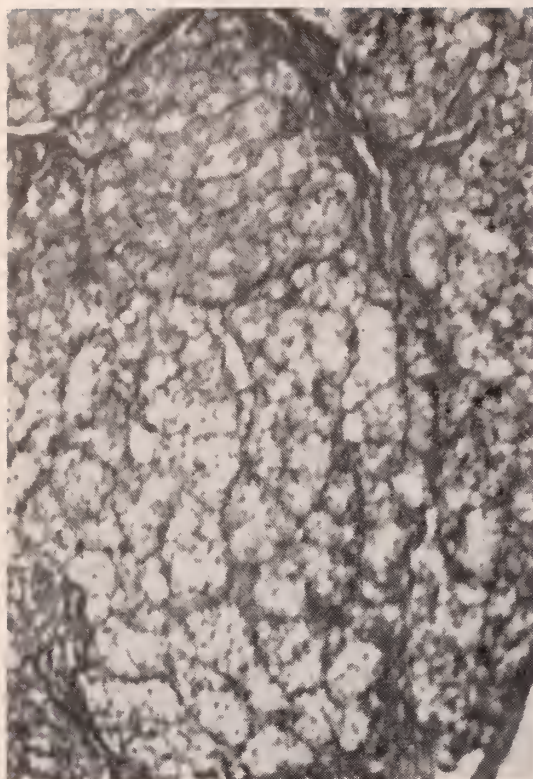


Figure 1-A (x 40)

Treatment

The over-all effectiveness of any one or combined form of therapy is difficult to assess. The tumor is indolent and may be present for many years before any form of therapy is attempted. It is a moot point as to whether local or radical resectional surgery is anything more than palliative.³ Radiotherapy demonstrated (a) a palliative effect on local recurrences and distant metastases (Case 1)^{8,3}, and (b) no regression.¹¹ Chemotherapeutic agents such as actinomycin, prednisone, cyclophosphamide, and thiotepa have been of little or no benefit except for thiotepa in one case.³ Cryosurgery to metastatic bone tumor with a pathological fracture had a localized palliative effect on one case (Case 2).

Prognosis

Accurate prognostic statistics are available in 72 cases. Fourteen of the 86 recorded cases were lost to follow-up. The two year survival rate was 73 per cent and the five year survival rate was 28 per cent. The two longest survivors died in the 20th year from disseminated

metastases.¹⁰ There were no life-time cures. The most frequent sites of metastases were lung (42 per cent), bone (19 per cent), and brain (15 per cent).¹⁰ Lymph node involvement was infrequent.

Conclusion

Eighty-four cases of alveolar soft-part sarcoma are recorded in the literature and two cases are here added.

The tumor is generally found in skeletal muscle, usually of the extremities. However, the histogenesis of alveolar soft-part sarcoma is controversial and remains unsolved. Its location, particularly with preference to the right side of the body, its sex distribution favoring females, and its indolent, but inexorable, course distinguish it from other soft tissue tumors. It apparently defies any known therapeutic modality.

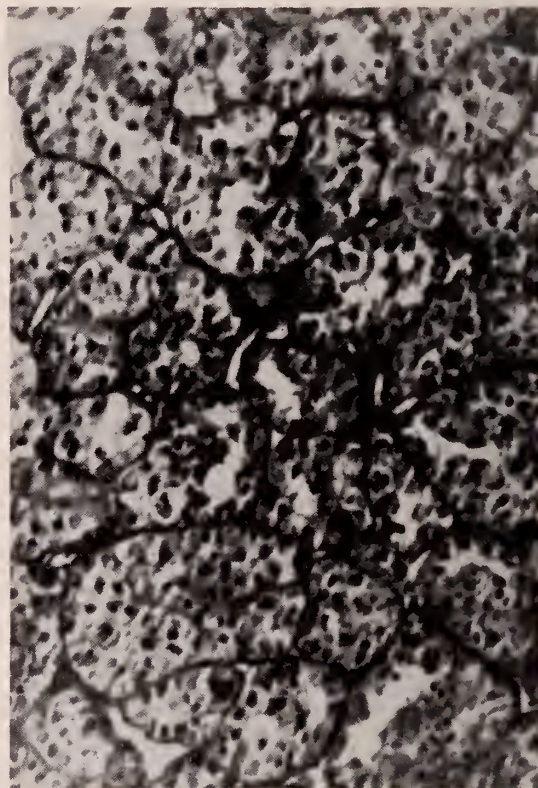


Figure 1-B (x 100)

Microscopic appearance is uniform with groups of 4 to 50 cells forming pseudoalveolar or organoid structures.

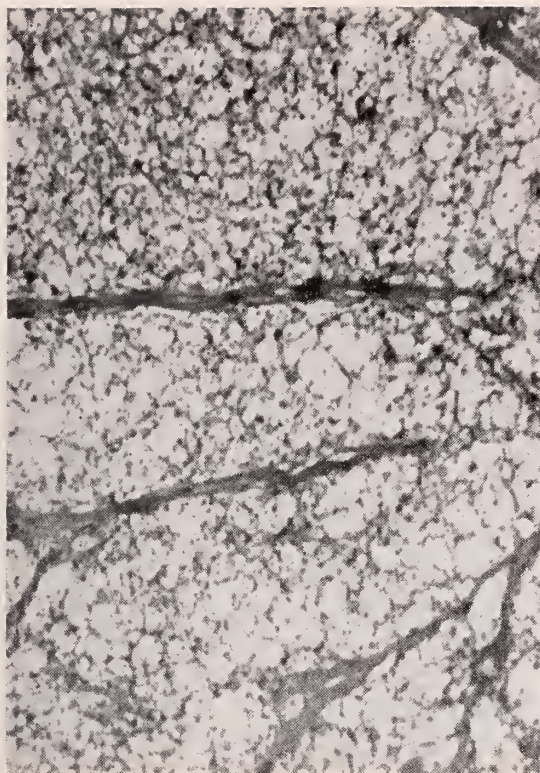


Figure 2-A (x 40)

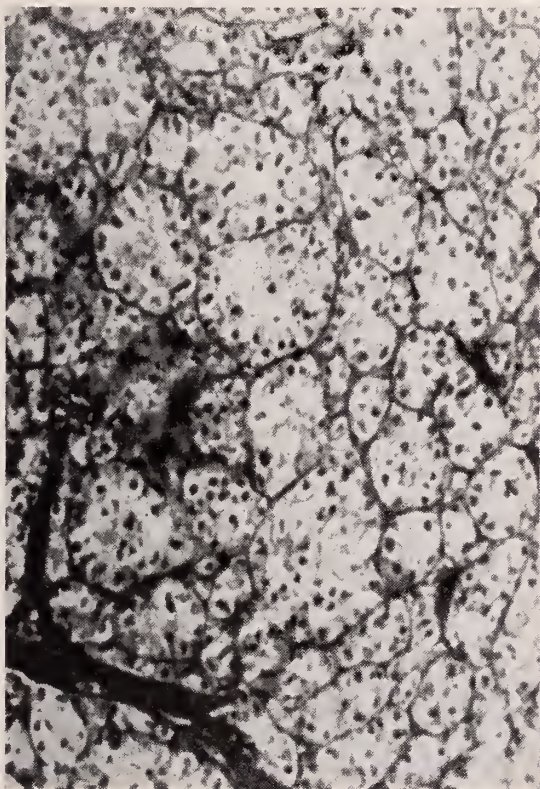


Figure 2-B (x 100)

Microscopic appearance is similar to case one.

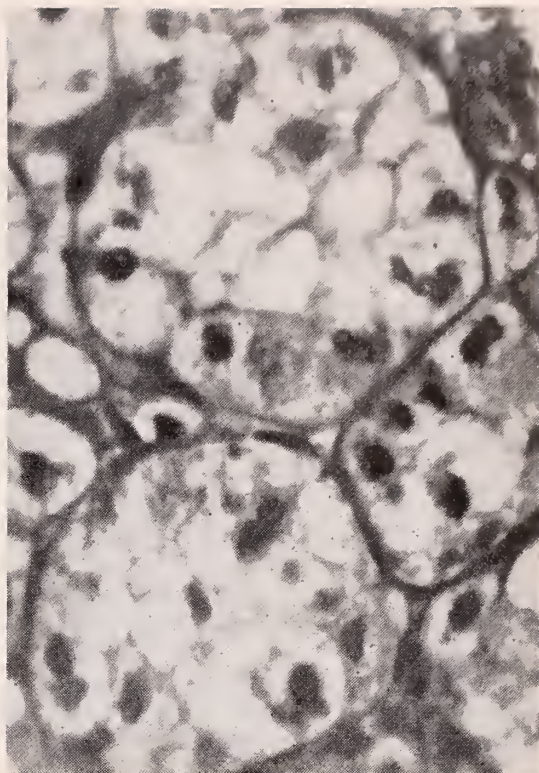


Figure 2-C (x 450)

The component cell is large, clear, and polyhedral.

A plea is made to conform to the nomenclature of Christopherson,⁶ using "alveolar soft-part sarcoma," so that additional data on this unusual tumor can be collected and evaluated.

Case One

A 55-year-old female developed a gradually enlarging asymptomatic mass, over a three-month period, on the volar aspect of the mid-right forearm. There was no antecedent history of trauma. CBC, urinalysis, SMA12, and x-ray of the chest were normal. On August 3, 1967, a 4.2 x 2.1 x 2.1 cm. ovoid, firm, pale brown tumor in the muscle belly of the third right flexor sublimis tendon was excised. The microscopic picture was typically alveolar soft-part sarcoma (Figures 1-A and B). Nests of tumor cells penetrated the walls of some medium-sized blood vessels. Ten days later an amputation was performed above the right elbow. No residual tumor was found in the specimen. In April 1968, a pathological fracture of the left femur developed and responded to radiotherapy and intramedullary nailing. The patient subsequently developed other bony metastases and died six months later.

Case Two

A 37-year-old female was hospitalized in July, 1969 because of a painless static lump in the left pectoral region of one year duration. Past history included removal of a benign tumor from the right breast in

1960. On physical examination a 3 x 2 x 2 cm. firm, movable, homogeneous, nontender mass was present in the upper one-third of the left pectoral muscle. Also a 2 x 2 x 2 cm. firm movable nontender mass was found in the lateral aspect of the left breast.

CBC, urinalysis, SMA12, and chest x-ray were normal. A fibrocystic mass was removed from the left breast and the tumor from the left pectoral muscle was also excised. Cut section showed it to be fleshy and light pink to light yellow in color. The microscopic picture was typical of alveolar soft-part sarcoma (Figures 2-A-B-C). Small buds of tumor cells penetrated the wall and lumen of medium-sized vessels. Four days later a resection of the left pectoralis major muscle and the left axillary nodes was performed. The muscle and 15 nodes were negative for residual tumor. In November, 1970, a pathological fracture of the right hip was treated with a prosthesis. Ten months later a pathological fracture of the left femur was treated with an intramedullary nail and cryosurgery with regression of the local tumor. The patient died seven weeks after this procedure. Autopsy revealed metastases to the brain, the retro-orbital area, the sternum, ribs, vertebrae, both femora and pelvis, liver, and spleen, and multiple lymph nodes.

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588 Eagle Rock Avenue

Hepatitis as Threat to Artificial Kidney Patients

Patients who are being kept alive on artificial kidney machines run a high risk of contracting hepatitis, studies reported in a recent issue of *JAMA* indicate.

Nurses and others working in dialysis centers also are subjected to increased hepatitis risk, often through contamination by accidental needle pricks while working with their patients.

One article, from the Center for Disease Control, Atlanta, reports on a study made in 65 kidney dialysis units across the nation. Rates of hepatitis for dialysis patients and staff were 3.3 and 3.2 cases per 100, respectively, compared with a rate of 0.03 per 100 population

reported in the nation at large.

Another article reports on an outbreak of hepatitis in a Miami hospital in which ten staff members contracted the disease from contact with a single infected patient.

In an editorial accompanying the two reports, Thomas C. Chalmers, M.D., of the National Institutes of Health, says: "Until significant progress is made in the prevention of chronic renal disease, the providers of medical care will be increasingly afflicted with the need to carry out long-term dialysis and renal transplant therapy. Such efforts will be seriously hampered by frequent viral hepatitis in both patients and staff.



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Choline Bitartrate	15 mg.
Inositol	10 mg.
Calcium Pantothenate	2.5 mg.
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Copper (from Copper Sulfate)	0.25 mg.
Zinc (from Zinc Oxide)	0.25 mg.
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WRITE FOR LITERATURE AND SAMPLES

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Dr. Meltzer has presented a scholarly and lucid discussion of the problem of myocardial damage complicated by several varieties of conduction delay. The electrocardiographic criteria, pathological-anatomical explanations, and prognostic and therapeutic implications are included. This article should stimulate the non-cardiologist to familiarize himself with the new semantics of electrocardiography at least.

Anterior Myocardial Infarction Complicated by Right Bundle Branch Block And Left Anterior And Posterior Fascicular Block

A Clinical Survey With Reference to the Literature

Abraham Meltzer, M.D./Perth Amboy

With the advent of coronary care units during the past decade and the continuous monitoring of patients, the early detection and treatment of cardiac arrhythmias following myocardial infarction has been an important factor in reducing the mortality from coronary occlusion. This has also led to earlier detection of heart block and with the sophistication and development of pacemakers, there has been greater success in dealing with these problems. However, there still remains a significant number of patients who, despite monitoring, pacemakers, and efficient pharmacological control of cardiac arrhythmias, die of myocardial infarction. Many of the latter are complicated by bundle branch block. In recent years, Rosenbaum¹ has popularized the concept of the hemiblocks and the term left anterior and posterior hemiblock or fascicular block.

The width of the QRS complex is felt by many observers to be an important prognostic sign as to the development of complications of infarction. When a narrow QRS complex is exhibited, the block is felt to be above the bundle of His and with a wide QRS complex

the site of block below the bundle of His—the latter often leading to A-V block and death.^{2,3} This has led to the development of His bundle recordings to aid in determining the site of A-V block.⁴ It is felt that heart block in inferior infarction is usually due to an ischemic lesion of the A-V node—while the heart block in anterior myocardial infarction involves necrosis of the bundle branch system.

Despite the present sophistication of our monitoring equipment and pacemakers, a significant per cent of patients with myocardial infarction complicated by right bundle branch block and left anterior and posterior hemiblock die. It is the purpose of this paper to present cases of anterior infarction who manifest these particular conduction disturbances with particular attention to the recent literature.

Historical Background

Rosenbaum refers to the work of Eppinger and Rothberger who, in 1910, wrote the first paper in the literature on producing bundle branch block by experimentally cutting the bundle branches. In 1917, Rothberger and Winterberg interrupted the divisions of the left bundle branch and were able to produce

patterns of what is now known as left anterior and posterior hemiblock alone or in combination with right bundle branch block. In the 1920's and 30's, Wilson and his co-workers further experimented by severing the anterior division of the left bundle branch. In 1942, Kobayasin obtained the EKG pattern of left posterior hemiblock alone or in association with right bundle branch block by cutting the posterior division of the left bundle branch. In the 1950's, Grant^{5,6} reported that a large number of anterolateral myocardial infarctions were accompanied by a leftward shift in the QRS complex and popularized the term peri-infarction block. In 1954, Richman and Wolff⁷ reported on left bundle branch block masquerading as right bundle branch block—that is the pattern of complete left bundle branch block in the standard leads and right bundle branch block in the precordial leads. Lenegre⁸ made reference to the fact that in periods of complete heart block, a marked widening of the QRS to 0.12 sec. or more is a weighty argument in favor of major destruction of the two bundle branches and refers to sclero-degenerative replacement of both branches. This was found to be on an ischemic basis in only one-fourth of the cases. In the 1960's, Lepeschkin⁹ reported on the electrocardiographic diagnosis of bilateral bundle branch block in relation to heart block. Watt and Pruitt in the 1960's found that interruption of the anterior fibers of the left bundle branch shifted the QRS axis toward the left and that of the posterior fibers toward the right. Their studies were further applied to the human electrocardiogram.¹⁰ In 1950, Rosenbaum first became interested in the subject while observing a patient with anterior infarction who developed right bundle branch block and a QRS axis of -75° followed a few weeks later with an axis of $+110^\circ$. He reasoned that these peculiar electrocardiograph patterns indicated block in the left anterior and posterior divisions of the left bundle branch in association with right bundle branch block. Rosenbaum states that complete heart block is due to involvement of the right bundle branch and the two divisions of the left bundle branch. This has led to the concept of trifascicular block.²³

Anatomy

The bundle of His is a thin cylindrical fascicle which connects the A-V node with the bundle branches. The bundle is oriented anteriorly and inferiorly to the A-V node and penetrates the central fibrous body from its posterior and superior aspect. After emerging from the central fibrous body—the bundle of His follows the postero-inferior border of the membranous septum—first at its atrial and then its ventricular portion. Excessive sclerosis and calcification of the central fibrous body may eventually disrupt the bundle causing complete heart block with a narrow QRS complex.¹² When penetrating the central fibrous body, the bundle of His is closer to the mitral and tricuspid valve rings than the aortic ring. Thus, calcification of the mitral ring may cause complete heart block. The bundle of His is considered as composed of two segments—a “penetrating” and “branching” portion. The left bundle branch arises from the branching portion of the bundle of His, while the segment above this is the penetrating portion. The spot where the RBB separates from the most anterior part of the LBB is referred to as the pseudobifurcation. A lesion of the aortic valve usually injures the branching segment and will be commonly associated with block in the subdivision—especially the RBB and the anterior division of the LBB (“sclerosis of the left side of the cardiac skeleton”—Lev's Disease).¹²

The right bundle branch appears as a continuation of the bundle of His after the fibers of the left bundle branch have been given off. Three main segments have been recognized. The initial segment (subendocardial) is close to the aortic and tricuspid valves and is actually a “central” structure which can be reached from the left or right side of the ventricular septum. It is located in the anterior pole of the membranous septum. Right bundle branch block due to involvement of the initial segment of the RBB system is likely to be accompanied by left anterior hemiblock and some degree of A-V block, or both. Its blood supply is derived from the right coronary artery (A-V nodal artery) in 90 per cent

of human hearts. The second portion of the RBB has an approximate length of 20 mm and runs within the thickness of the ventricular septum. Its blood supply is derived from the anterior descending coronary artery. If an antero-septal infarction is extensive enough, right bundle branch block as well as left anterior hemiblock may be produced. The third segment of the right bundle branch is again subendocardial and is anchored to the anterior papillary muscle of the right ventricle.

The posterior fibers are the first to arise from the main left bundle; following this, the anterior fibers are given off. Both divisions are inserted into the anterior and posterior papillary muscles respectively. The anterior division of the LBB is thinner, longer, and much more vulnerable than the posterior division. The RBB is thinner, longer and much more vulnerable than the main LBB. The main left bundle lies a few mm from the non-coronary and right coronary aortic cusps—thus calcifications from the aortic leaflets may cause left bundle branch block. The blood supply to the main left bundle branch is by way of the right main coronary artery and the anterior descending artery. The blood supply to the anterior division of the LBB is by perforating arteries from the anterior descending. The anterior division belongs to the outflow portion of the left ventricle. The posterior division of the LBB is protected to a greater extent than the anterior division. It has a double blood supply (anterior and posterior descending coronary arteries), belongs to the inflow tract of the left ventricle, and is thicker.

The right bundle branch and the two divisions of the left (bifascicular) bundle branch constitute the "trifascicular" intraventricular conduction system.

Ekg Criteria

Left Anterior Hemiblock^{1,11,13}—The salient features of left anterior hemiblock are (1) Mean QRS axis around -60° , (2) Q_1S_3 pattern, and (3) A normal or slightly prolonged QRS duration

In left anterior hemiblock, the QRS forces for

the first 0.020 sec. are oriented at approximately $+120^\circ$ in the frontal plane, and are caused by early activation of the postero-inferior wall of the left ventricle in an inferior and rightward direction. These forces are responsible for the small Q wave in leads I and AVL. The middle and late forces (.060 sec.) are oriented at -60° superiorly and to the left. The Q_1S_3 pattern is produced by the opposite direction of the initial and terminal portions of the QRS loop.

Right Bundle Branch Block with Left Anterior Hemiblock—Whenever the QRS is oriented superiorly between -60 and -120° with a Q_1S_3 pattern in the presence of a right bundle branch block—left anterior hemiblock should be considered. The diagnosis is supported by a small r/s relationship in lead II, and also when the first half of the QRS forces point toward -60° . Three main directions of the electrical forces in the frontal plane are recognized: In the first 0.02 sec. the forces point inferiorly and to the right, close to $+120^\circ$, writing a small q in I and a small r in leads II and III. In the next 0.04 sec. the forces are directed superiorly and to the left at about -60° . The terminal force (ascribed to the RBBB) points toward the right at about 180° . The two initial vectors are due to the left anterior hemiblock.

Right Bundle Branch Block with Left Posterior Hemiblock—The salient features of right bundle branch block with left posterior hemiblock are (1) Mean QRS about $+120^\circ$, (2) S_1Q_3 pattern, and (3) Tall R leads II, III

The first 0.02 sec. are directed at -45° in the frontal plane and are due to left posterior hemiblock. These forces are caused by early activation of the anterolateral wall of the left ventricle in a superior and leftward direction, and are responsible for a small q in II and III and a small r in Lead I. The middle forces, between 0.02 and 0.06 sec. are directed at $+120^\circ$, and are caused by delayed activation of the postero inferior wall of the left ventricle in an inferior and rightward direction and are responsible for the first part of the S wave in lead I, and the R waves in leads II and III.

The terminal forces, or last 0.04 to .06 sec. are oriented between $+150^{\circ}$ and $+180^{\circ}$ and are caused by RBBB. The two dominant forces are additive [RBBB ($+150^{\circ}$) and LPH ($+120^{\circ}$)] resulting in the tall R waves in leads II and III.

Case One

A sixty-nine year old female was admitted on January 25, 1969 with precordial chest pain radiating down the left arm. EKG was consistent with an acute anterior infarction. Pertinent physical findings were rales in both lung bases, sinus rhythm with occasional atrial premature contractions and a blood pressure of 140/80. Chest film revealed slight cardiac enlargement with no gross infiltrates and pleural thickening on the left. Serum enzymes included SGOTs of 120 and 232, LDH 312 and 543, and CPK 150. Initial electrocardiogram revealed an axis of about -45° but subsequent EKGs (2/14/69) revealed a left anterior hemiblock with further axis shift to -75° (see Figure 1). On 3/3/69 the patient developed several near syncopal episodes. Subsequent physical examination revealed an abnormal pulsation at the lower left parasternal area and a ventricular aneurysm

was confirmed fluoroscopically. The patient was discharged fifty-nine days post infarction on March 25, 1969.

Four weeks later she was catheterized and ventricular aneurysmectomy was contemplated. However, on 5/27/69, she was readmitted with ventricular tachycardia and heart block and congestive heart failure. Despite the insertion of a transvenous pacemaker, the patient expired twelve hours after admission.

Case Two

A sixty-three year old male was admitted on January 19, 1972 with precordial chest pain radiating down both arms of five days' duration. There was a past history of a "heart" murmur and red rectal bleeding in addition to several near syncopal episodes. The patient was a poor historian and did not admit readily to symptoms, although he stated he was a moderate to heavy alcohol consumer. Pertinent physical findings included dyspnea at rest, pallor, a grade IV systolic ejection murmur over the aortic area transmitted to the neck and apex, bibasilar rales, a liver palpable three finger breadths below the right costal margin and ankle edema. An EKG (see Figure 2) revealed a left anterior hemiblock pattern, with a QRS axis of -60° . There were abnormal RST segment depressions with an anteroseptal infarction

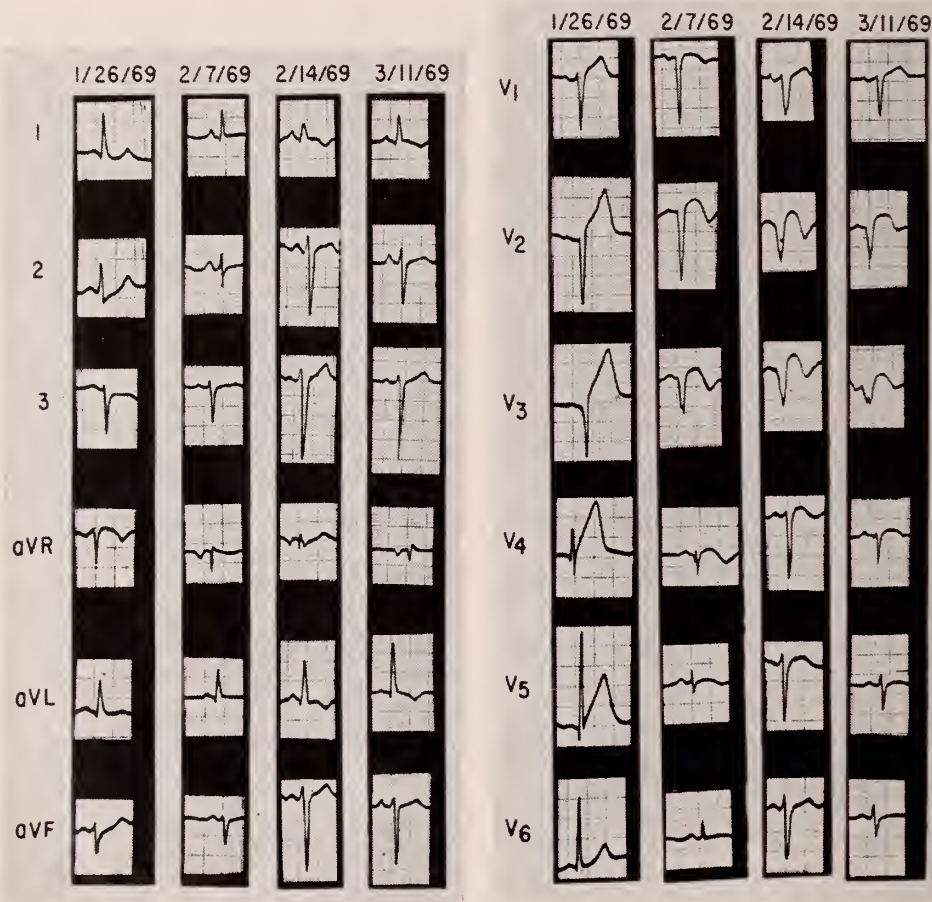


Figure 1—Case 1—Admission EKG of 1/26/69 reveals an acute anteroseptal infarction with left axis deviation of -45° . On 2/14/69 there is a shift in the

axis to -75° with further intraventricular conduction delay. (QRS .10) This pattern is consistent with left anterior hemiblock.

pattern of indeterminate age. A chest film revealed an enlarged heart with congestive changes bilaterally. The hemoglobin was 8.2 grams. The patient died of a cardiac arrest five hours and thirty minutes after admission. At autopsy there was evidence of myocardial infarction, old and recent, involving the septum and left ventricle. There was marked coronary atherosclerosis. The heart weighed 520 grams. The left ventricle was 1.8 cm thick. There was evidence of mitral and aortic calcific stenosis. Bilateral pulmonary edema was noted. Other incidental findings included Laennec's cirrhosis, diverticulosis, and chronic gastritis.

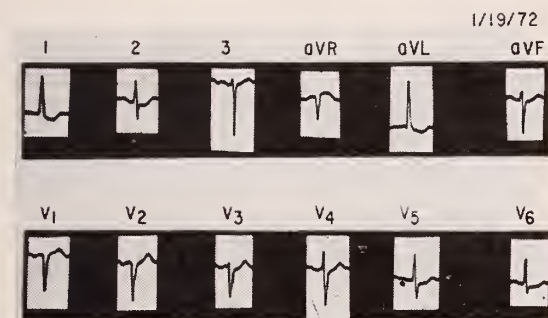


Figure 2—Case 2—This EKG suggests an antero-septal infarction. There is left axis deviation of -60° with deep S waves in leads III and AVF. Pattern probably consistent with left anterior hemiblock although a definite Q wave in lead I is not discernible. A Q wave is noted in AVL.

Case Three

A seventy-two year old female was admitted on November 17, 1971 after having "passed out at home." There was a past history of hypertension, an enlarged heart, arteriosclerosis obliterans, and a calcified abdominal aorta. On admission, the blood pressure was unobtainable. Electrocardiogram revealed evidence of inferior and septal infarction with right bundle block. (see Figure 3A and 3B). The patient developed A-V dissociation and complete heart block and expired fifty-five minutes after admission.

Case Four

A fifty-six year old male, was admitted on October 15, 1971, with precordial oppressive chest pain originating at the wrist. This was associated with diaphoresis. The patient was admitted for coronary insufficiency from August 27, 1971 to September 4, 1971 and did fairly well on Inderal® and Isordil® until October 14, 1971. His father died of a coronary at the age of fifty-five. He smoked five to six cigarettes a day. Admission blood pressure was 120/80 with a pulse of 50. The patient was cold and clammy and continued to complain of precordial distress. The electrocardiogram of October 16 revealed an anterolateral infarction with left anterior hemiblock. (See Figures 4A and 4B) SGOT was 387 units, LDH 635 units, and CPK 177 units. The patient developed ventricular irritability with paroxysms of ventricular tachycardia and nodal rhythm. Rhythm strips revealed the development of right bundle branch block as well and the patient died of cardiac arrest thirty-nine hours after admission.

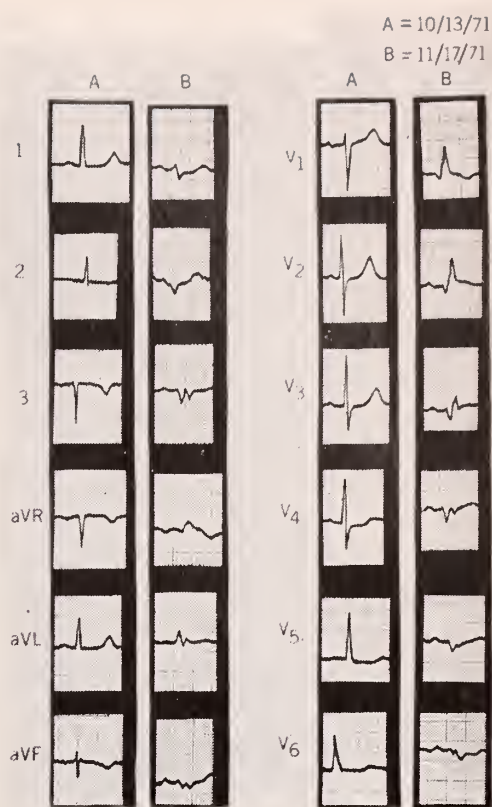


Figure 3A—Case 3—EKG of 10/13/71 is a baseline tracing which reveals a left axis deviation of -30° without evidence of acute myocardial damage. On 11/17/71 an acute anterior and inferior infarction is noted as well as Right Bundle Branch Block.

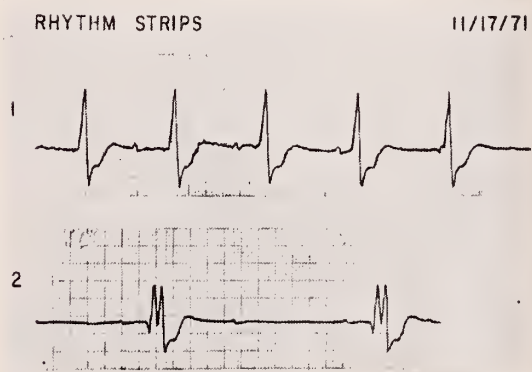
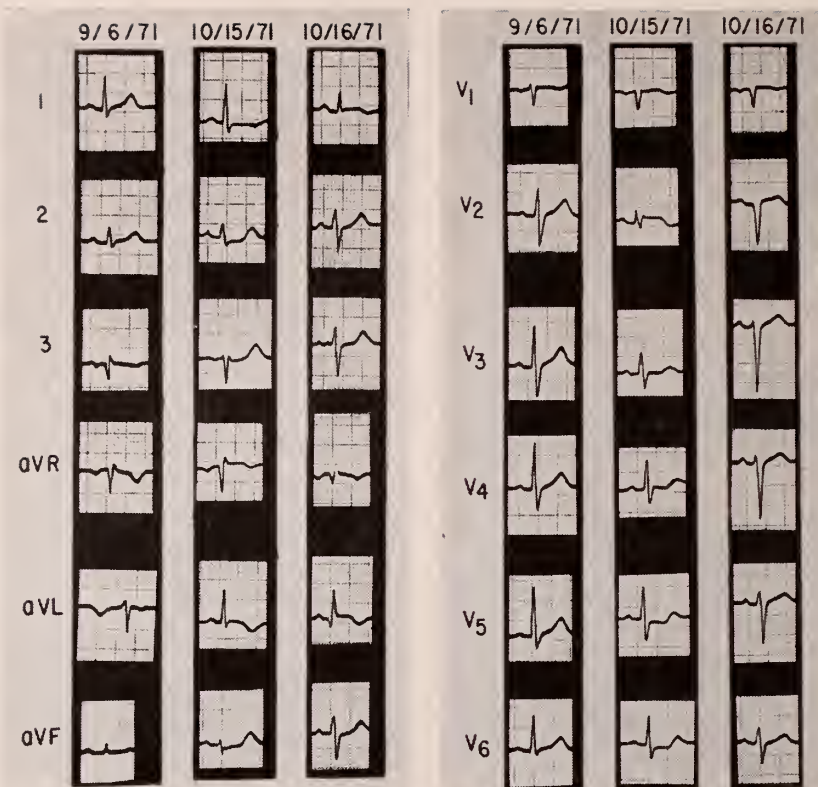


Figure 3B—Case 3—Rhythm Strip—(1) A-V dissociation with an atrial rate of 50 and idio ventricular rhythm at a rate of 56. (2) Complete A-V block with an atrial rate of 45 and an idio ventricular rhythm at a rate of 30.

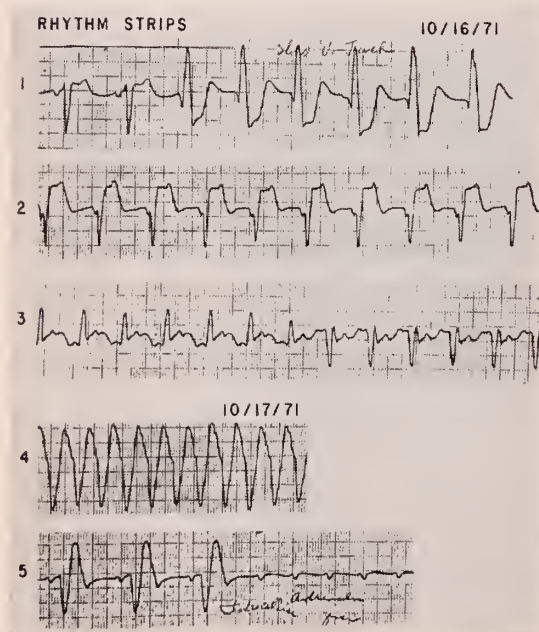
Case Five

A forty year old male businessman was admitted on May 24, 1971 with diaphoresis and severe oppressive chest pain radiating down both arms. He had a mild episode of similar pain two weeks prior to



Figures 4A—Case 4—EKG of 9/6/71 is a baseline tracing in which an old posterior infarction cannot be excluded. EKG of 10/15/71 reveals diffuse RST segment depressions with changes suggestive of a prob-

able acute infarction. On 10/16/71 there are changes indicating an anteroapical lateral infarction with left axis shift to -45° and a pattern consistent with left anterior hemiblock.



admission. He was a mild diabetic treated with diet and tolbutamide. There was a history of hypertension as well as chronic peptic ulcer disease. He was a two-pack-a-day cigarette smoker. Electrocardiogram taken in the emergency room revealed an acute anterolateral infarction. Shortly after the admission, the patient sustained three episodes of ventricular fibrillation and was successfully defibrillated. EKGs of May 26 revealed the development of a left anterior hemiblock. An EKG of 5/27 revealed the presence of a right bundle branch block as well as the left anterior hemiblock. A transvenous pacing catheter was passed as a precautionary measure. The patient had a stormy hospital course. S_3 and S_4 gallop sounds were noted. He was digitalized for congestive heart failure. His blood sugar was difficult to control with blood glucose values initially as high as 400. The SGOT was 260, LDH 764, and CPK 145. Short paroxysms of ventricular tachycardia were controlled with lidocaine. The right bundle branch block pattern was not present on the EKG of 5/30/71, but the

Figure 4B—Case 4—Rhythm Strip—(1) Two sinus conducted beats are followed by A-V dissociation with an accelerated ventricular rhythm at a rate of 75; (2) A-V junctional rhythm at a rate of 80; (3) The first six complexes reveal an upright slurred R wave suggesting a Right Bundle Branch Block pattern; (4) Ventricular tachycardia at a rate of 160; (5) Sinus conducted beats with widening of the QRS complex in a Right Bundle Branch Block configuration followed by ventricular asystole.

left anterior hemiblock pattern persisted. The patient improved gradually and was discharged on 6/21/71. The electrocardiogram taken at the time did not reveal the left anterior hemiblock pattern.

Case Six

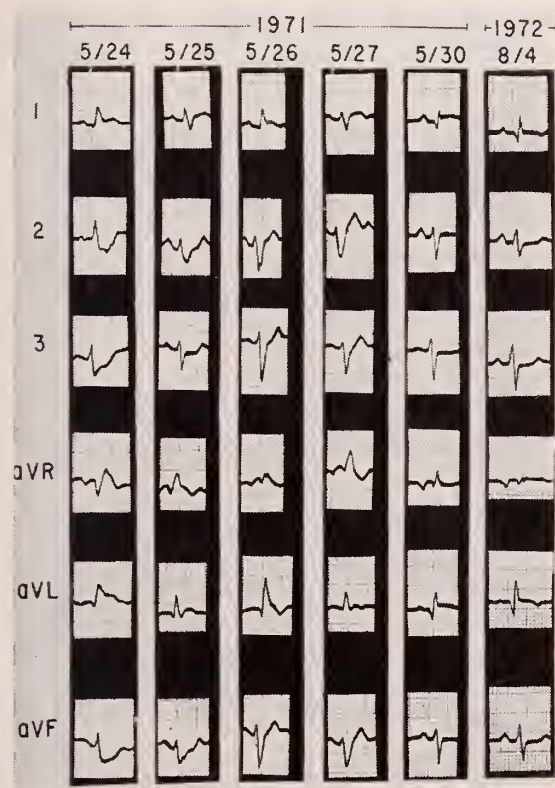
A seventy-four year old female diabetic was admitted on March 13, 1972 with chest pain radiating to both arms and the upper back. This was associated with cough and dyspnea. Admission EKG (March 13) was consistent with an acute anteroseptal infarction with a left anterior hemiblock pattern which disappeared on March 15, 1972. The patient was digitalized and placed on diuretics. The diabetes was very brittle and difficult to control with blood sugars ranging from 130 to 650. The BUN ranged from 36 to 68 mgm per cent. LDH was 1687, SGOT 253, and CPK 184. On March 17, 1972, the patient developed a right bundle branch block pattern. This was followed by the development of first and second degree A-V block (Mobitz I and II) despite the discontinuation of digoxin. In addition, there was frequent ventricular irritability. A transvenous pacemaker was inserted. Despite this, the patient had a progressive downhill course and expired thirteen days after admission with ventricular tachycardia and ventricular fibrillation.

Case Number 7

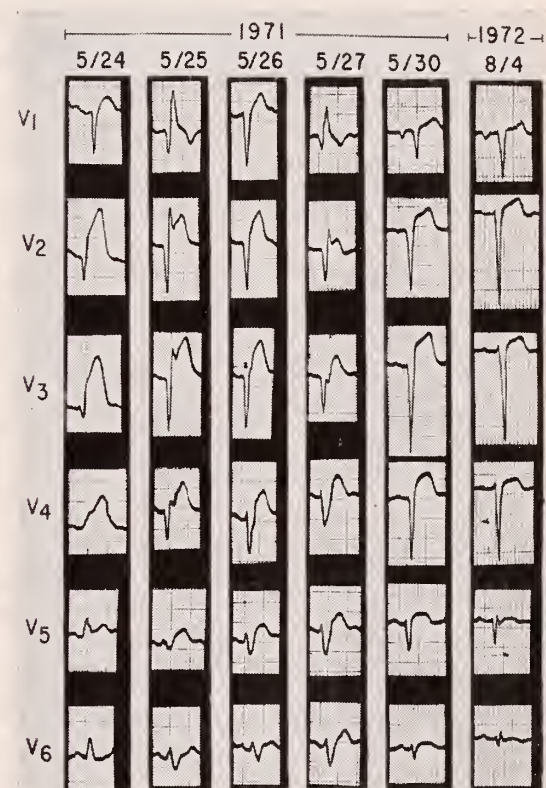
A forty-eight year old female known hypertensive was admitted on July 12, 1971 with retrosternal constricting pain radiating to the left upper extremity. EKG was consistent with an acute anteroseptal infarction. The CPK was 152, SGOT 640, and LDH 900. A portable chest film revealed cardiac enlargement with a small amount of fluid in the right base. A gallop rhythm (S_3) was present. The patient was digitalized and placed on diuretics. On July 14, 1971, the electrocardiogram revealed the presence of a right bundle branch block and left posterior hemiblock. This was followed by a brief period of asystole (see Figures 7). A transvenous pacing catheter was inserted during which the patient went into ventricular tachycardia for which she was successfully counter-shocked. On August 10, 1971 the right bundle branch block pattern disappeared. The patient gradually improved and was discharged thirty-three days after admission. There was no evidence of intraventricular conduction delay, bundle branch block, or posterior fascicular block at discharge.

Discussion

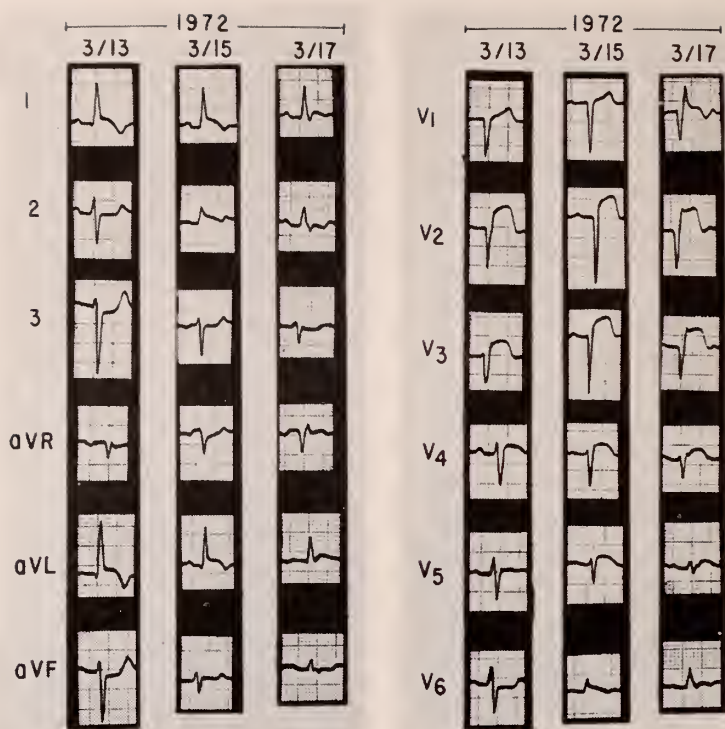
Rosenbaum, *et al.*^{1,13} studied 128 cases of left



Figures 5—Case 5—EKG of 5/24/71 reveals an acute anteroseptal lateral infarction with a tendency to left axis deviation (axis -30°). On 5/25/71 a Right Bundle Branch Block pattern has developed in addition to the evolutionary changes of the infarction. EKG of 5/26/71 reveals the disappearance of the Right Bundle Branch Block but the development of deep S waves in leads III and AVF and a pattern consistent with left anterior hemiblock (axis -60°).



On 5/27/71 the Right Bundle Branch Block pattern in addition to the left anterior hemiblock is noted. EKG of 5/30/71 reveals the evolutionary changes of the anteroseptal lateral infarction with no evidence of intraventricular conduction delay and an axis of -45° . On 8/4/72 the residual findings of the anteroseptal lateral infarction are noted with essentially the same axis.



Figures 6A—Case 6—EKG of 3/13/72 reveals an acute anteroseptal infarction with left axis deviation of -75° . A Q wave is noted in lead I and a deep S in lead III. Pattern is consistent with left anterior hemiblock. EKG of 3/15/72 reveals serial changes of the

infarction with a shift in the axis to -40° . On 3/17/72 the left anterior hemiblock pattern has disappeared and a Right Bundle Branch Block pattern has developed.

anterior hemiblock and found the most important cause to be coronary artery disease (41 per cent). In patients over forty to fifty years of age, the most common cause of left anterior hemiblock is an anteroseptal or anterolateral infarction. In the presence of angina pectoris, LAH suggests that the anterior

descending artery is diseased and may herald an anterior infarction. Arterial hypertension was present in 54 per cent of the 128 cases of LAH. In 24 per cent, hypertension was associated with coronary artery disease; in 30 per cent, hypertension was the only disease.

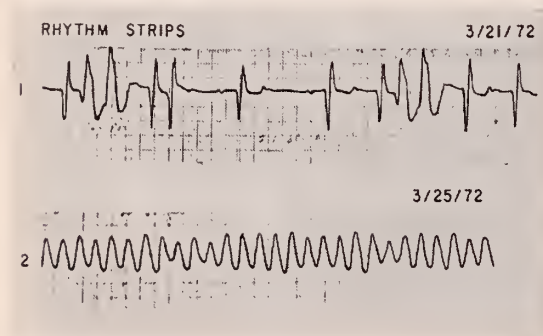
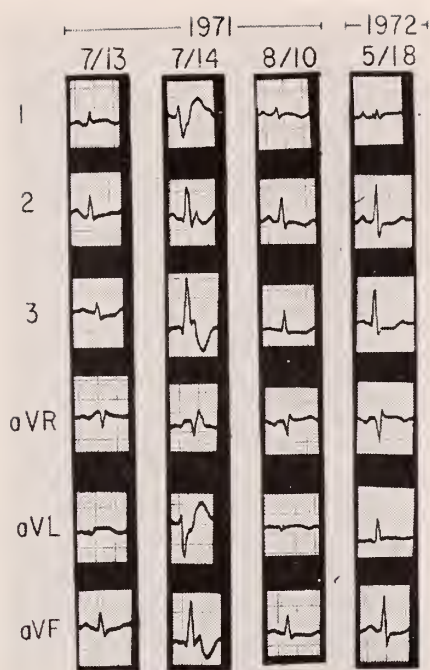


Figure 6B—Case 6—Rhythm Strip—(1) Sinus conducted beats with a PR interval of .26 ventricular as well as atrial premature contractions are noted. There is a transient episode of second degree A-V block (Mobitz Type II). (2) Ventricular tachycardia at a rate of 240.

Myocardial disease is another common cause of left anterior hemiblock; this occurs in 50 to 80 per cent of patients with Chaga's Disease and almost one-half of the patients with myocardopathy. Since most myocardopathies involve the left ventricle, LAH occurs quite frequently.

Aortic valve disease as a cause of LAH was present in ten of 128 cases (7.80 per cent). As previously alluded to, this may be on a mechanical basis or due to fibrosis or a calcific process that involves the aortic leaflets or base of the aorta. Dilatation of the left ventricle may cause left anterior hemiblock through

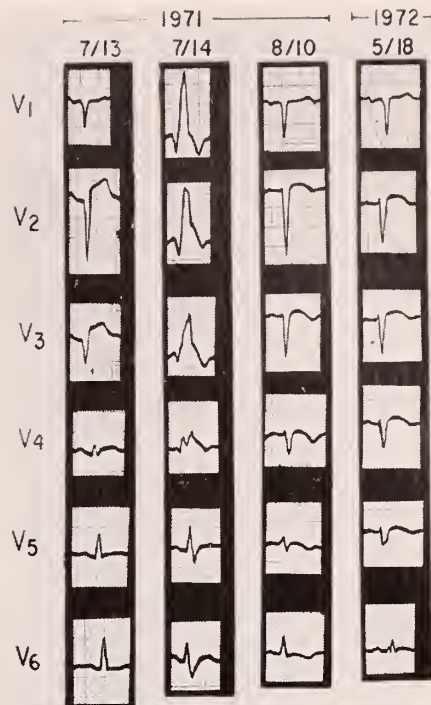


Figures 7A—Case 7—EKG of 7/13/71 is consistent with an acute anteroapical infarction with an axis of $+60^\circ$. On 7/14/71 a Right Bundle Branch Block pattern has developed and the axis has shifted to $+130^\circ$. There are tall R waves noted in leads II and III. This pattern is consistent with left posterior

elongation or stretching of the anterior division of the left bundle branch.

In elderly people, LAH may occur in the absence of any other clinical abnormality. This may be related to subclinical coronary artery disease or to sclerosis of the left of the cardiac skeleton (Lev's Disease). In younger people, left anterior hemiblock may be a manifestation of myocarditis and a congenital anomaly of the conduction system or congenital heart disease as seen in tricuspid atresia, anomalous origin of the left coronary artery from the pulmonary trunk and endocardial cushion defects. Other causes of left anterior hemiblock are pulmonary emphysema, hyperkalemia, inferior myocardial infarction and the pre-excitation syndrome.^{14,15,16}

Pryor and Blount¹⁷ studied twenty-eight patients with left axis deviation in whom autopsy reports were available and found that twenty-seven patients had coronary athero-



hemiblock. EKG of 8/10/71 reveals disappearance of the Right Bundle Branch Block pattern and a shift in the axis to $+90^\circ$ in addition to serial changes of the anteroapical infarction. EKG of 5/18/72 reveals an infarction pattern without abnormal axis deviation or intra-ventricular conduction delay.

sclerotic disease. Of these, only three had old myocardial infarction (anterolateral wall)

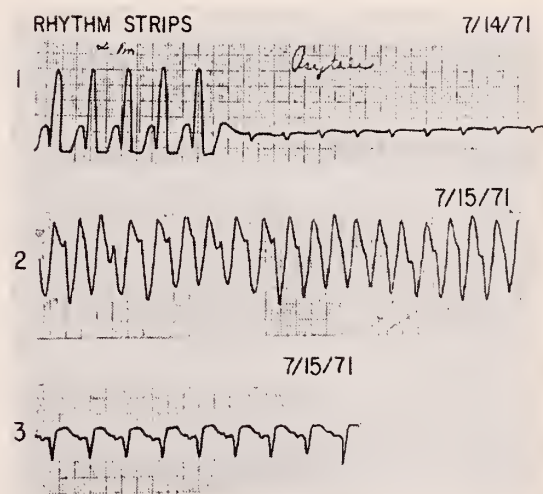


Figure 7B—Case 7—(1) The first five complexes reveal supraventricular tachycardia at a rate of 130 with Right Bundle Branch Block aberration followed by asystole; (2) Ventricular tachycardia at a rate of 175; (3) Sinus tachycardia at a rate of 130 without intra-ventricular conduction delay.

and the remaining twenty-four were found to have only myocardial fibrosis involving the anterior fascicle of the left bundle. Bahl, Walsh and Massie¹⁸ studied 353 cases of left axis deviation in which post-mortem data were available and found coronary artery disease in 85 per cent of the total series with myocardial infarction in 39 per cent.

Both of our cases who manifested left anterior hemiblock with anterior infarction succumbed. They manifested extensive infarction with complications of pump failure, ventricular tachycardia, ventricular aneurysm and shock. Some authors have ascribed "extreme" left axis deviation to an apical ventricular aneurysm.¹³ This further leftward shift of the axis (Case 1) and QRS prolongation occurred two and one-half weeks after admission and was associated with recurrent chest pain. One may postulate extension of the infarction or the ventricular aneurysm as the etiological factor in the axis shift. Coe and Weinberg¹⁹ in a recent study of the incidence and mortality of intraventricular conduction defects in acute myocardial infarction found that the most common isolated defect was left anterior hemiblock (incidence of 94 per cent). Seventeen of twenty patients with left anterior hemiblock had anterior myocardial infarction and six of these had previous infarction. Of these twenty patients with left anterior hemiblock, the pattern was present in seventeen on admission, and in three it evolved during the post-infarction phase. Of the seventeen patients with left anterior hemiblock on admission, axis was restored during the period of observation in three patients and in three others left axis deviation became less prominent. The authors concluded that in their series of 212 infarctions, left anterior hemiblock occurred as an acute manifestation in only nine cases (4.3 per cent). In their study, left anterior hemiblock appeared to be the most innocuous. Although significant conclusions cannot be drawn from the presentation of two cases of left anterior fascicular block who succumbed, it is evident that extensive and fatal anterior infarction may occur without the development of bifascicular, trifascicular block and complete A-V block as se-

quelae to left anterior fascicular block.

Case 3 demonstrates a patient with an antero-inferior infarction and a right bundle branch block conduction abnormality who succumbed within twenty-four hours of admission. Norris and Croxson²⁰ studied 565 patients with acute infarction admitted to a coronary care unit. In a previous study,²¹ the authors noted that A-V block in posterior infarction often progressed from first to second degree and occasionally to third degree, that Stokes-Adams attacks were uncommon, that the prognosis from the A-V block was good, and that when complete heart block occurred, the QRS complexes were usually of normal duration, indicating a high ventricular pacemaker. In anterior infarction, however, the A-V block was usually complete, QRS duration prolonged, attacks of asystole common, the prognosis poor, and the warning of complete heart block, not first degree block, but right bundle branch block. Of the 565 patients studied, right bundle branch block was present in 7 per cent of patients with a mortality rate of 61 per cent and left bundle branch block in 4 per cent of patients with a mortality rate of 48 per cent. The incidence of complete heart block in cases of RBBB was 26 per cent as opposed to an 8 per cent incidence for those cases with LBBB. Asystole developed suddenly and not as a terminal manifestation of heart failure or shock in thirteen patients with right bundle branch block but in no patient with left bundle branch block. There was a tendency for patients with left bundle branch block to die of cardiac failure or cardiogenic shock while patients with right bundle branch block were more likely to die suddenly from asystole. The authors found no evidence that the presence or absence of left axis deviation had any effect on prognosis regarding survival or the development of asystole. This suggests that bilateral bundle branch block may not have been the mechanism. They postulate that another mechanism could be sudden extension of proximal RBBB to involve the main A-V bundle. Autopsies were carried out on eighteen of the twenty-three patients who died with RBBB, and on five of twelve who

died with LBBB. In all patients with RBBB, the anterior descending branch of the left coronary artery or the left main coronary artery before its bifurcation was occluded or grossly narrowed by atheroma or thrombus. Infarction was extensive in all cases, and usually involved the anterior part of the left ventricular myocardium and interventricular septum. In patients with left bundle branch block, extensive coronary atheromas were present, but the finding of occlusion of the left anterior descending artery was less common and the site of infarction not constant. This is in keeping with anatomical studies which have shown that the proximal part of the right bundle branch is constantly supplied by a branch of the left anterior descending artery, while the left bundle branch is less discrete and derives its blood supply from septal branches of right and left coronary arteries. The authors suggest that the use of a transvenous electrode catheter attached to a demand pacemaker should be considered in patients with anterior transmural infarction who develop RBBB.

Gould, *et al.*,²² studied thirty-one patients with acute myocardial infarction and right bundle branch block. Sixty per cent of five patients with right bundle branch block uncomplicated by left anterior or posterior fascicular block died—two with an arrhythmia and one in shock. Ten of fourteen patients (72 per cent) with RBBB and left anterior hemiblock died of a cardiac arrhythmia. Eight of eleven patients with right bundle branch block and left posterior hemiblock died.

In patients over forty to fifty years of age, right bundle branch block with left anterior hemiblock is commonly related to coronary artery disease. In patients below forty years, RBBB with LAH may be related to a cardiomyopathy. Aortic valve disease is another important cause. A group of patients in whom RBBB with LAH is not associated with any form of heart disease but in whom complete heart block and Stokes-Adams seizures are noted are related to a sclero-degenerative process limited to the conduction tissue (Lene-gre's Disease). There is another group of eld-

erly people usually over seventy who have RBBB and left anterior hemiblock but do not develop A-V block as often. These cases are felt to be due to sclerosis of structures adjacent to the conduction system (Lev's Disease).

Cases 4, 5, and 6 represent anterior infarction complicated by right bundle branch block and left anterior hemiblock with a 67 per cent mortality. In Case 4, left anterior hemiblock was complicated by right bundle branch block and then asystole. The onset of asystole was preceded by ventricular tachycardia. In Case 6, left anterior hemiblock was complicated by right bundle branch block and varying degrees of first and second degree block leading eventually to ventricular fibrillation and death. Thus, one may invoke the additional involvement of the main left bundle branch, i.e., bifascicular block or the posterior division of the LBBB, i.e., trifascicular block.²³

Lasser, Haft, and Friedberg²⁴ reviewed 5,500 consecutive hospital records and found a 1 per cent incidence of RBBB with left anterior hemiblock. Of these, 10 per cent manifested complete heart block. In addition, in a series of forty-four patients, 59 per cent of those who experienced transient or permanent complete heart block showed the pattern of complete right bundle branch block with abnormal left axis deviation. This series did not include any patients with heart block secondary to acute myocardial infarction. Kulbertus and Collignon²⁵ likewise reported sixteen patients with RBBB coexisting with left superior intraventricular block (eleven cases) or a left inferior intraventricular block (five cases) that progressively developed transient or permanent complete heart block with Stokes Adams syndrome.

Scanlon, Pryor and Blount²⁶ studied twenty-eight cases of acute myocardial infarction and bilateral bundle branch block. Twenty-two patients had right bundle branch block and left axis deviation. The over-all incidence of complete heart block in the face of right bundle branch block and left axis deviation associated with acute myocardial infarction was 27

per cent. Of these twenty-two patients, eight died within six weeks of the time of infarction, a mortality rate of 36 per cent. They concluded that patients with bilateral bundle branch block have more diffuse myocardial involvement than patients without it, and may therefore die more readily if complete heart block developed. They feel that in patients with bilateral bundle branch block in the face of an acute infarction, the prophylactic insertion of a temporary transvenous pacemaker is warranted and indicated.

Godman, *et al.*,²⁷ found that bundle branch block complicated myocardial infarction in sixty-eight of 806 cases of acute myocardial infarction and was associated with a mortality of 56 per cent. Six of eleven patients with right bundle branch block and left axis deviation developed complete block. Twenty-five out of forty-eight patients with right bundle branch block and thirteen of twenty patients with left bundle branch block died. In twenty-one of the sixty-eight patients, complete heart block developed and in thirteen of these an idioventricular pacemaker failed to emerge. Bilateral bundle branch block preceded the onset of complete heart block in fifteen patients. Of thirty-one patients with complete bundle branch block who had a pacing electrode inserted prophylactically, complete heart block developed in nine. Eight subsequently died despite pacing and autopsies showed extensive myocardial damage with septal involvement and occlusion of all three main coronary arteries. It is this extensive myocardial damage that ultimately determines the prognosis. The authors also found that patients with bundle branch block and normal A-V conduction were much more susceptible to mechanically induced arrhythmias than had been noted with block of second and third degree. It has been their practice not to introduce pacing electrodes in patients with bilateral bundle branch block before the onset of complete heart block. This is in contrast to the feeling of Scanlon's group.

Case 7 is an example of a female patient who developed a right bundle branch block and left posterior hemiblock following an an-

teroseptal infarction with eventual good recovery. A brief period of asystole occurred following which a transvenous pacemaker was inserted. Ventricular tachycardia developed during the pacemaker insertion and the patient was countershocked. The RBBB pattern and left posterior hemiblock disappeared after twenty-four hours.

Rosenbaum¹³ reported A-V block in twenty-five of thirty cases (83.3 per cent) of RBBB with LPH. Stokes-Adams seizures were recorded in eighteen (60 per cent). Of these thirty cases of RBBB with LPH, twenty-six were male and only four female. There was no explanation for the sex difference. In the same series, coronary artery disease, Lenegre's Disease, and the cardiomyopathies were found to be the three almost exclusive causes of RBBB with LPH. The posterior division of the left bundle branch is the least vulnerable segment of the whole intraventricular conduction system. When the lesions are sufficiently extensive to alter conduction in the posterior division, the RBB or the anterior division of the left or both are usually also involved. This imparts a distinctive character to RBBB with LPH, bringing it closer to the trifascicular blocks than to any other type of intraventricular block. There are several reasons why the posterior division of the LBBB is the least vulnerable segment of the conduction system.¹ The posterior division is thicker and shorter than either the anterior division or the RBB. Therefore, a small lesion may spare the posterior division. The QT interval is shorter than that of the RBB or left anterior division, making it more refractory. As mentioned previously, the posterior division has a double blood supply, depending on both the anterior descending and right coronary arteries while the anterior division and RBB have a single blood supply, mostly from the anterior descending coronary artery.

RBBB may be accompanied by a QRS of +120 in several circumstances other than when LPH exists. It may be seen in right ventricular hypertrophy, in a vertical heart due to a slender body build, in emphysema in an extensive lateral infarction (28) or if the previ-

ous QRS lies between $+30$ and $+60^\circ$ —RBBB may shift the QRS axis to $+120^\circ$. A case of pure intermittent left posterior hemiblock unassociated with RBBB has been reported in a forty-five year old female with cardiomyopathy.²⁹

Castellanos, *et al.*,³⁰ reported on nine patients with right bundle branch block and right axis deviation who did not have right ventricular hypertrophy, pulmonary disease, or extensive lateral myocardial infarction. Four patients had chronic block and five had acute myocardial infarction. This pattern was attributed to co-existing block in the right bundle branch and posterior division of the left bundle branch. It frequently alternated with complete left bundle branch block—complete right bundle branch block, and complete right bundle branch block with block in the anterior division of the left branch. A type II Mobitz Block was observed in eight patients. This was probably due to a simultaneous conduction disturbance in the right bundle branch and in both divisions of the left bundle branch (trifascicular block). Of the five patients with acute myocardial infarction, three died—all of whom had anteroseptal infarction. One patient with an inferior and one with an anterior infarction were alive after one month. This high mortality rate occurred despite pacing—indicating extensive involvement of the conduction system.

Varriole and Kennedy^{31,32} reported on twelve patients aged sixty-four to eighty-five with right bundle branch block and left posterior fascicular block. The blocks were present from one to nine years. Five patients had coronary artery disease (42 per cent). Three had inferior infarction alone and two had combined antero-inferior infarction with septal involvement. In all but one, bilateral bundle branch block developed years after the clinical infarction. Concomitant occurrence of a significant conduction delay or block within the right bundle branch and posterior radiations of the left bundle would usually require occlusive lesions of both the left anterior descending and right coronary arteries. Therefore, the combined sites of anterior and inferior

infarction are more likely to produce this pattern since the posterior division of the left bundle receives its blood supply from the right coronary artery or circumflex branch of the left or both—whereas the middle third of the right bundle as well as the anterior division of the left are supplied by branches of the left anterior descending. In five patients (42 per cent) the cause was undetermined (probably Lenegre's Disease) and two patients (16 per cent) had aortic valve sclerosis (Lev's Disease). In their study, complete heart block was not seen, although the average follow-up period was 2.7 years. This is in contrast to the 16 per cent incidence of complete heart block in patients with chronic right bundle branch block and right axis deviation reported by Scanlon, *et al.*²⁶

Recently the technique of His bundle recordings has allowed the study of patients with right bundle branch block with normal left or right axis deviation. Narula and Samet³³ recorded His bundle electrograms in 123 patients. Most of the patients with right bundle branch block (normal axis) and first degree A-V block had a normal His Purkinje (H-V) time with delayed localization in the A-V node indicating that this combination in the electrocardiogram does not necessarily mean bilateral bundle branch block. In none of the patients with only left axis deviation was the His Purkinje time abnormal. In seven of thirty patients with RBBB (normal axis) the A-V conduction time was abnormal. Seventy-two per cent of the sixty-eight patients with RBBB and LAD (with or without myocardial infarction) had an abnormal His Purkinje time. All fifteen patients with RBBB and RAD had abnormal A-V conduction times. Thus, their findings indicate that in patients with right bundle branch block and right axis deviation, the disease process in the His Purkinje system is more extensive and diffuse. Of the fifteen patients with this pattern, six (40 per cent) intermittently showed complete heart block or second degree A-V block.

Rosen, *et al.*,⁴ recorded bundle of His electrograms in eight patients with acute myocardial infarction. In three of four patients with dia-

phragmatic infarction, the His bundle potentials revealed slowing or block above the bundle of His most likely in the A-V node. One patient with diaphragmatic infarction had block in the common bundle. In one patient with subendocardial infarction—type I block, advanced and complete heart block all occurred above the bundle of His. All of the preceding five patients had normal intraventricular conduction and A-V junctional escape rhythms during the periods of complete block. In contrast, three patients with anterior infarction manifested complete block below the bundle of His and idioventricular escape rhythms. Their electrophysiologic observations suggest that the heart block in diaphragmatic myocardial infarction is usually due to an ischemic lesion of the A-V node, while heart block in anterior myocardial infarction is due to necrosis involving both bundle branches. All patients with anterior myocardial infarction and block died with either congestive failure or shock. One had EKG evidence of RBBB with LAD; one RBBB with RAD, and one an idioventricular rhythm.

In recent years with the advent of coronary care units and monitoring equipment, observations have been made as to the greater mortality of patients with anterior myocardial infarction who manifest bundle branch block and heart block. Bauer, *et al.*,³⁴ found that thirteen of 100 consecutive unselected patients with myocardial infarction developed bundle branch block. Their hospital mortality (62 per cent) was twice as great as in the total series with the majority of deaths due to shock and heart failure.

Sutton, *et al.*,³⁶ carried out detailed histological examination of the conduction system in twenty-nine cases of acute myocardial infarction complicated by heart block. In twenty-four cases, posterior infarction was present, and occlusion had occurred in the artery from which the blood supply to the A-V node was ultimately derived. In these cases, major structural damage to the conduction system was rare, but when present, involved the bundle branches. A-V block in posterior infarc-

tion is therefore due to hypoxia or other reversible factors, consistent with the high incidence of transient heart block in survivors. On the other hand, in five cases when anterior infarction alone was present, the blood supply of the A-V node was not compromised, but massive infarction had caused major damage to both bundle branches.

Stock and Macken³⁶ observed complete heart block in twenty-four of 350 patients with myocardial infarction during continuous electrocardiographic monitoring. In posterior infarction, CHB was observed in patients who developed 1° and 2° A-V block but not bundle branch block. In antero-septal infarction, CHB was found in patients with BBB and Mobitz type II block but not in patients with 1° block and Mobitz type I block. Right bundle branch block with a Q wave in lead V₁ was the usual form of bundle branch block observed in patients with complete heart block and antero-septal infarction.

Narvas, *et al.*,³⁷ reported on fifteen of 117 patients with acute myocardial infarction who developed advanced A-V block (second degree or complete). Nine patients had additional complications, such as preceding Stokes-Adams syndrome, cardiogenic shock, congestive heart failure, cardiac arrest, and anterior infarction with a wide QRS complex. There were five deaths in this group, all of whom were paced. In the remaining six patients (who were not paced and were without complications) all survived, had heart rates above 60 and narrow QRS complexes.

Similarly, Roos and Dunning³⁸ reviewed eleven of 114 patients with antero-septal infarction and right bundle branch block—ten of whom had left axis deviation and one right axis deviation. Seven of eleven patients died, mainly of cardiogenic shock. Frequent complications were sudden complete heart block (five patients) and ventricular asystole (four patients) without previous lengthening of the atrioventricular conduction time.

Lopez, *et al.*,³⁹ studied twenty patients with complete A-V block due to acute myocardial

infarction. Eleven patients with an inferior infarction had most commonly block above the bifurcation. The block was transitory, no Stokes-Adams attacks were observed, and the outcome was good. None required pacing. On the other hand, patients with an antero-septal infarction suffered from a block below the bifurcation, had severe Stokes-Adams attacks—and all required artificial pacing. Five of seven patients treated with artificial pacing recovered A-V conduction through the left bundle within a few days—however, in spite of this they all died.

Kostuk and Beanlands⁴⁰ found complete heart block in 9.1 per cent of 308 patients with acute myocardial infarction. Patients with anterior infarction and a wide QRS had a poor prognosis (80 per cent mortality rate). In inferior infarction and heart block with a narrow QRS, the mortality rate was 45 per cent. The high mortality rate was due to the extent of the infarction and not to the heart block itself. Thus, the authors state that the use of transvenous pacemakers in this condition may reduce mortality in only a small group of patients.

Summary:

A review of the concept of left anterior and posterior fascicular block and right bundle branch block as a complication of anterior infarction is presented.

Typical electrocardiograms were presented along with case histories. A review of the literature repeatedly stressed the grave prognosis for patients with anterior infarction complicated by bundle branch block and wide QRS complexes. In contrast to inferior infarction, it was noted that the block in anterior infarction was below the bundle of His and involved extensive necrosis of the bundle branch system. Patients with anterior infarction complicated by fascicular block often are in shock, have Stokes-Adams attacks, congestive failure and arrhythmias. Thus, despite the fact that recognition of this pattern alerts the physician to the possible development of complete heart block, the prophylactic insertion of a transvenous pacing catheter usually does not alter the ultimate outcome.

A bibliographic listing of 40 citations is available from the author.

280 Hobart Street

Hazard in Antidiarrheal Drugs

Americans traveling abroad are advised to avoid non-prescription drugs for self-treatment of traveler's diarrhea, in an article in a recent issue of *JAMA*.

Many of these products sold in other countries contain a drug that may cause serious neurologic upsets and even death, says the report by Godfrey F. Oakley, Jr., M.D., of the Center for Disease at Atlanta. The offending drug is known to pharmacologists and physicians as iodochlorhydroxyquin. It is sold under more than 50 different trade names throughout the world, in many countries without prescription. In the United States it is available only on prescription and is used

principally to treat amebic dysentery. The drug does not help overcome traveler's diarrhea and should not be used for this complaint, says Dr. Oakley.

Unregulated use of products containing this drug can cause an impairment of the senses, particularly the sense of touch. They can cause eye damage that sometimes leads to blindness.

"Because the drugs are sold under different trade names, an American traveling out of the country may find it difficult to avoid being exposed to the drug if he buys any over-the-counter remedy for diarrhea."

Both often



● Predominant psychoneurotic anxiety

● Associated depressive symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anti-convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent in the patient within a few days rather than in a week or

two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

For further information on this subject, the following references are provided:

1. Henry BW, *et al*: *Dis Nerv Syst* 30:675-679, Oct 1969.
2. Hollister LE, *et al*: *Arch Gen Psychiatry* 24:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics* 11:438-441, Sept-Oct 1970.

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of child-bearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or over-sedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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The two major forms of glaucoma may be adversely affected by systemically administered adrenergic drugs.

The Drug-Induced Glaucomas

Marvin G. Frank, M.D./Roselle Park

Have you ever questioned the effects of systemic medication on your patient with known glaucoma? There was a time when the physician had to concern himself only with the belladonna derivatives but today the FDA places warnings on many drugs. Up until five years ago the ophthalmologist would have had a simple answer to the questions on drug-induced glaucomas depending upon whether the patient had open angle or narrow angle glaucoma. The answer to this problem is now more complex and it is the object of this report to review current aspects of this common problem.

We see two major types of glaucoma. The most common is the open angle or chronic simple glaucoma. Here intraocular pressure becomes elevated slowly and with no acute symptoms. It is believed due to some defect in the filtration angle of the eye. The term "open angle" refers to that angle made between the iris and the corneoscleral recess. This angle becomes critical in the acute closure or narrow angle glaucoma. As this angle closes off, the intraocular pressure rises rapidly and the classical symptoms of pain, redness and blurred vision result. Angle closure may be precipitated by atropine, cycloplegic, or mydriatic agents, or by any of the anticholinergic drugs which dilate the pupil and crowd the already narrow angle. This is probably the form of glaucoma for which the original warnings were placed on the drug products.

Anticholinergic drugs produce their adverse effects by pupillary dilatation in those eyes with "narrow angles." Thus, the physician administering these drugs for their systemic ef-

fects should be alert to the *form* of glaucoma which is present in his patient. What of the patient who has diagnosed narrow angle glaucoma and is already being treated with pilocarpine? This may be an ideal situation, actually, since the regular instillation of the miotic agent should protect the patient from an acute attack during his therapy with any of the anticholinergics. One group of investigators¹ followed the intraocular pressure of patients on oral propantheline. Three kinds of patients were included: those with open angle glaucoma, narrow angle glaucoma, and normals. There were some elevations of intraocular pressure in the glaucoma patients but upon instillation of pilocarpine the pressure returned to normal.

The undiagnosed patient with "narrow angles" can present serious problems. This is the more usual case where the unsuspecting physician finds himself with an acute glaucoma following the use of systemic atropine. There is really no way the internist or family doctor can be sure his patient's eyes will tolerate the drug without a scrupulous ophthalmologic evaluation. It may be impossible for the physician to refer every one of these patients to an ophthalmologist before initiating therapy. This points up one of the weaknesses of the FDA warnings. The known glaucoma patient is protected by his pilocarpine instillations. The undiagnosed patient may have an attack of angle closure glaucoma provoked by an anticholinergic agent. Perhaps the FDA warning should read: "Use with caution in patients with known glaucoma and those suspected of glaucoma."

What about the individual with open angle glaucoma? A completely different problem is posed by patients whose pupil can be dilated

safely without danger of precipitating angle closure.

This situation was investigated² by the thrice daily administration of oral atropine (0.6 mg.) for one week to patients with open angle glaucoma. Surprisingly enough, elevations of intraocular pressure were found in a significant number of these patients. Earlier investigators³ were able to demonstrate elevated intraocular pressure when using topical cyclopentolate, a cycloplegic agent, on a group of glaucoma patients. In each of these situations the pilocarpine was able to normalize the intraocular pressure. No explanation has been offered as to why the pressure should become elevated in the latter case. It is easy to understand how an angle closure attack may be provoked by dilation of the pupil but a totally different explanation is involved in the open angle glaucoma patient.

The physician is now faced with a problem when prescribing anticholinergic drugs. The package insert warns about the use of these drugs in "glaucoma" but does not specify which type of glaucoma. These products can adversely affect both narrow and open angle glaucoma. Patients on pilocarpine therapy for either form of the disease are apparently protected from intraocular pressure elevations. The patient with narrow angle glaucoma who must be placed on anticholinergic therapy should be monitored by his ophthalmologist during initial therapy and warned against discontinuing his miotic for any reason. The open angle glaucoma patient is not in the same danger since drug-induced elevations of pressure are reversible even if several pilocarpine instillations are missed. The attending physician should discuss the case with the patient's ophthalmologist when initiating therapy so that a record is made of the type of glaucoma present. This combined approach should enable the patient to proceed with his anticholinergic therapy free of any ocular side-effects.

Up to this point most references have been made to the anticholinergic drugs in this cate-

gory. There are some other agents which have a sympathomimetic effect and also bear glaucoma warnings. The three main groups⁵ are listed in Table 1.

Table 1

1. Antispasmodics
 - a. Gastrointestinal effects
 - Atropine
 - Belladonna
 - Propantheline
 - Scopolamine
 - Orphenadrine
 - b. Other
 - Artane (trihexyphenidyl)
 - Benadryl (diphenhydramine)
 - Cogentin (bentropine)
 - Peritrate (pentaerythritol tetranitrate)
 - Papaverine
2. Phenothiazine Derivatives
 - Thorazine (chlorpromazine)
 - Stelazine (trifluoperazine)
3. Psychotropic Agents
 - a. Antidepressants
 - Elavil (amitriptyline)
 - Tofranil (desipramine)
 - Sinequan (doxepin)
 - Aventyl (nortriptyline)
 - Vivactil (protriptylene)
 - b. MAO Inhibitors
 - Marplan (isocarboxazid)
 - Parnate (tranylcypromine)
 - Eutonyl (pargyline)
 - Niamid (nialamide)

Summary

A perplexing problem concerns the undiagnosed case with either form of glaucoma. An attack of angle closure glaucoma may be provoked so that the prescribing physician must always bear this in mind. The patient with open angle glaucoma will have asymptomatic elevations of intraocular pressure and it is not inconceivable that optic nerve damage could occur with prolonged therapy. What then can the family physician do to protect his patient from this problem? The angle closure attack produces classical symptoms so it is the open angle case that deserves additional consideration. Each person over 35 years of age started on anticholinergic therapy should have a fundoscopic examination and a measurement of his intraocular pressure with a tonometer. The prescribing physician should be alert to deep, large cupping of the optic disc and ele-

vations of pressure exceeding 20 millimeters on the tonometer. Any suspicious case deserves a complete ophthalmologic evaluation.

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744 Galloping Hill Road

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THE JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

P. O. Box 904, Trenton, New Jersey 08605

Selective visceral arteriography and arterial drug infusion for the diagnosis and management of massive gastrointestinal hemorrhage are described. This adjunctive method of therapy may control bleeding temporarily or permanently.

Monitoring Direct Intra-arterial Vasopressor Therapy for Gastrointestinal Bleeding

**Barbara E. Cohn, M.D.,
et al./Livingston***

Uncontrolled gastrointestinal bleeding demands prompt diagnosis and effective therapeutic management. To this end, selective angiography has become an increasingly important adjunct in the evaluation and treatment of bleeding from the gastrointestinal tract by documenting the site of hemorrhage, permitting the delivery of vasoactive drugs in maximum doses directly to the demonstrated lesion and monitoring the effectiveness of therapy. The use of this procedure allows an imminent operation to be postponed or an emergent operation to be performed more safely with reduction in the continued hemorrhage.

Wiggers,¹ in 1911, demonstrated that pituitary gland extract caused diffuse vasoconstriction. However, the marked side effects from intravenous injection obviated the clinical benefits of this mode of therapy. In 1962, Abrams² utilized intra-arterial injection of vasoactive substances for enhancement of renal tumor visualization during arteriography. The minimal systemic side effects associated with this technique provided the framework by which pharmacologic control of portal hypertension was achieved by Nusbaum and co-workers.^{3,4}

Selective mesenteric catheterization should be

considered early in the diagnosis and management of massive gastrointestinal hemorrhage. Patients with portal hypertension and bleeding varices and patients with arterial gastrointestinal hemorrhage are candidates for this mode of therapy.

Selective arterial catheterization is performed utilizing the Seldinger technique.⁵ In all cases, either femoral artery is punctured and serial angiographic studies are performed utilizing selective injections into the visceral circulation. Following the initial arteriographic study, vasopressin is infused at a rate 0.2 to 0.4 units per min. via a battery-operated infusion device through the catheter previously employed for arteriography. An initial dose of 0.2 units per min. is begun as soon as the bleeding site has been localized. Repeat arteriography is then performed 15 minutes after commencement of the infusion utilizing the same rate and volume of contrast injection as employed during the initial study. This allows documentation of hemorrhage control and evaluation of the magnitude of local vasoconstriction. The dose rate of vasopressin may be adjusted according to the response noted during angiography.

Drug infusion is continued for approximately

* From the Departments of Radiology and Surgery, St. Barnabas Medical Center, Livingston. Coauthors are Dennis R. Filippone, M.D., William E. Matthey, M.D., and Joseph D. Cohn, M.D.

24 hours following cessation of active hemorrhage. Prior to catheter removal, the vasopressin infusion rate is tapered and, if (following cessation of infusion therapy) there is no recurrence of bleeding, the catheter is removed and bleeding from the femoral arterial puncture site is controlled by local pressure. Extended use of the indwelling arterial catheter is discouraged since it may serve as a nidus for thrombus formation.⁶

Between the period August 30, 1972 and June 30, 1973, ten patients underwent combined, selective visceral arteriography and arterial drug infusion for the treatment and control of massive gastrointestinal hemorrhage (Table).

hours was achieved in three of the patients.

Selective drug infusion did not temporize the bleeding in two patients. One of these patients, Case 5, had esophageal varices due to a hepatoma. Case 10, the second failure of infusion therapy was promptly explored and found to have a bleeding duodenal ulcer with a 2mm. arteriosclerotic vessel at its base.

Case Report

An 81-year-old male was admitted to Saint Barnabas Medical Center with weight loss, anorexia, low grade fever and ankle edema. Evaluation disclosed the presence of subacute bacterial endocarditis and a carcinoma of the rectum. A six-week course of antibiotic therapy was started for the subacute bacterial

Selective Visceral Arterial Perfusion in the Management of Massive Gastrointestinal Hemorrhage

Patient	Bleeding Site	Perfusion Vessel	Hemorrhage Control
1	Esophageal Ulcer	Left Gastric Artery	Temporary Control
2	Unknown, Multiple Myeloma	Celiac Artery	Temporary Control
3	Gastritis, Hiatal Hernia	Celiac Artery	Permanent Control
4	Varices, Portal Thrombosis	Superior Mesenteric Artery	Temporary Control
5	Varices, Hepatoma	Superior Mesenteric Artery	Uncontrolled
6	Duodenal Ulcer	Celiac Artery	Permanent Control
7	Varices, Portal Thrombosis	Superior Mesenteric Artery	Permanent Control
8	Gastric Ulcer	Splenic Artery	Permanent Control
9	Varices, Laennec's Cirrhosis	Superior Mesenteric Artery	Permanent Control
10	Duodenal Ulcer	Superior Mesenteric Artery	Uncontrolled

The patients ranged in age from 39 to 81 years. Nine patients were male and one was female. In nine of the ten cases, selective angiography demonstrated a definite or probable bleeding site. In patient two, a discrete bleeding site could not be identified. Subselective arteriography with drug infusion into secondary arterial branches (Cases 1 and 8) was possible in only two patients. Four patients were bleeding from esophageal varices, three from gastric and duodenal ulcers, one from an esophageal ulcer and one from gastritis. Permanent cessation of hemorrhage was obtained in five of the ten patients. Temporary cessation of hemorrhage lasting 13 hours to 24

endocarditis and an anterior resection with transverse colostomy was subsequently performed for the rectal carcinoma. The transverse colostomy was closed three weeks following the primary surgery and upper gastrointestinal bleeding developed on the second post operative day. Large amounts of blood were obtained on stomach irrigation and bleeding could not be controlled with local measures. Selective visceral angiography was performed demonstrating a bleeding ulcer in the gastric fundus supplied primarily by branches of the splenic artery (Figure 1). Angiography was followed immediately by the infusion of vasopressin into the splenic artery at the rate of 0.27 units per min. for a period of 20 minutes. A repeat splenic artery angiogram was performed demonstrating constriction of the splenic artery branches and cessation of intragastric hemorrhage (Figure 2). Continued vasopressin infusion was performed for a period of 19 hours resulting in permanent control of the gastrointestinal hemorrhage.



Figure 1—Selective splenic arteriography demonstrates a bleeding site in the gastric fundus (arrow). The vessel arises from the splenic artery. There is persistence of contrast material at the site indicated by the arrow.

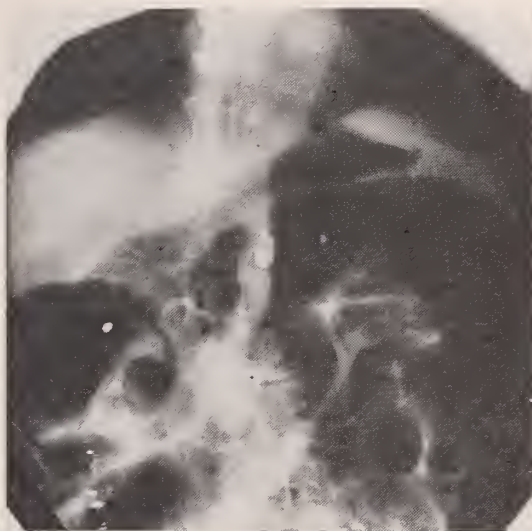


Figure 2—Following splenic arteriography, infusion of vasopressin was performed directly into the splenic artery at a rate of 0.27 units per minute for a period of 20 minutes. Repeat splenic arteriography was then performed demonstrating constriction of the splenic artery with reflux of dye into the abdominal aorta. There is no further evidence of hemorrhage into the gastric fundus.

Discussion

The above study illustrates the effectiveness of selective arterial catheterization in the diagnosis and management of both arterial and venous gastrointestinal hemorrhage providing

temporary and permanent control of the bleeding site. The use of selective visceral artery perfusion allows effective control of gastrointestinal hemorrhage in high-risk patients. The small dose of pharmacologic agent injected directly into the visceral arterial circulation diminishes the systemic effects of these agents. Continuous drug infusion provides for effective control of the bleeding and the absence of tachyphylaxis allows continuous effective drug response. In addition, vasodilatation of the hepatic arterial system associated with celiac or superior mesenteric artery vasopressin infusion allows a fortuitous added measure of safety in this technique.⁷

The effectiveness of the selective perfusion technique is judged on the basis of: (1) a decrease in caliber of the major visceral branches during serial arteriography after a test infusion; (2) an increase in local peripheral resistance evidenced by reflux of contrast into the aorta; (3) cessation of extravasation of contrast in cases of arterial bleeding. Continued effectiveness of drug infusion is documented by the cessation of hemorrhage. The catheter position must be secure in the visceral arterial lumen and, if possible, directed into secondary arterial branches by use of superselective techniques. In addition, the external segment of the perfusion catheter is secured in the groin and perfusion is performed by use of a mobile, battery-operated constant infusion unit.

Summary

Ten patients underwent combined selective visceral arteriography and arterial drug infusion for the diagnosis and management of massive gastrointestinal hemorrhage. Permanent control of bleeding was obtained in five patients and temporary cessation of hemorrhage was obtained in an additional three patients.

Selective visceral artery vasopressin perfusion provides an adjunct in the therapy of massive gastrointestinal hemorrhage.

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92 Old Short Hills Road

Simpler Rabies Vaccine

Successful human test of a new and much safer rabies vaccine is reported in a recent issue of *JAMA*. It uses virus grown in human diploid cell cultures rather than in cultures of duck embryo, the common source of the vaccine now in general use. The human diploid cell nutrient is also used in a new version of poliomyelitis vaccine released two years ago.

Antibody titers after two inoculations of the new vaccine were similar to those previously reported after 14 inoculations of duck embryo vaccine. Only minimal local reactions and no general reactions to the new vaccine were noted. Vigorous and uncomfortable reactions to the duck embryo vaccine are common. The latter also requires a large number of injections to induce the body to build its defenses against the rabies virus, while the new vaccine requires only two or three doses.


The new vaccine was developed at the Wistar Institute of Anatomy and Biology, International Reference Center for Rabies, in Philadelphia. It was tested on adult members of the staff of the Wistar Institute. Authors of the *JAMA* report are Tadeusz J. Wiktor, DMV; Stanley A. Plotkin, M.D., and Doris W. Grella. The inoculations were well tolerated.

Nose Surgery Becoming Commonplace

"Corrective rhinoplasty" alters the size and shape of the nose. It is now an almost routine and commonplace operation. In a recent issue of *Archives of Otolaryngology*, an Austrian doctor reports on 5,000 rhinoplasties performed over 20 years. Hans G. Bruck, M.D., of Vienna, divides rhinoplasty into three categories: (1) Improvement of the nose only; (2) Radical change of the size and shape of the nose, altering the whole face; (3) Profileplasties, in which a receding chin is built up at the same time the nose is altered. In a change of the whole facial appearance, sometimes radical psychological disturbances occur. The patient looks in a mirror and sees a complete stranger. The shock is sometimes difficult. Advance counseling is an absolute must for these patients, Dr. Bruck says.

In profileplasties, building up the chin as well as reshaping the nose, it sometimes is necessary to work along with a dental surgeon. In most cases, silicone implants to extend a receding chin work satisfactorily.

Although the operation is now common, there are times—about 4 per cent—when rhinoplasty results are not satisfactory. Then a second operation to correct the problems left from the first sometimes is in order.




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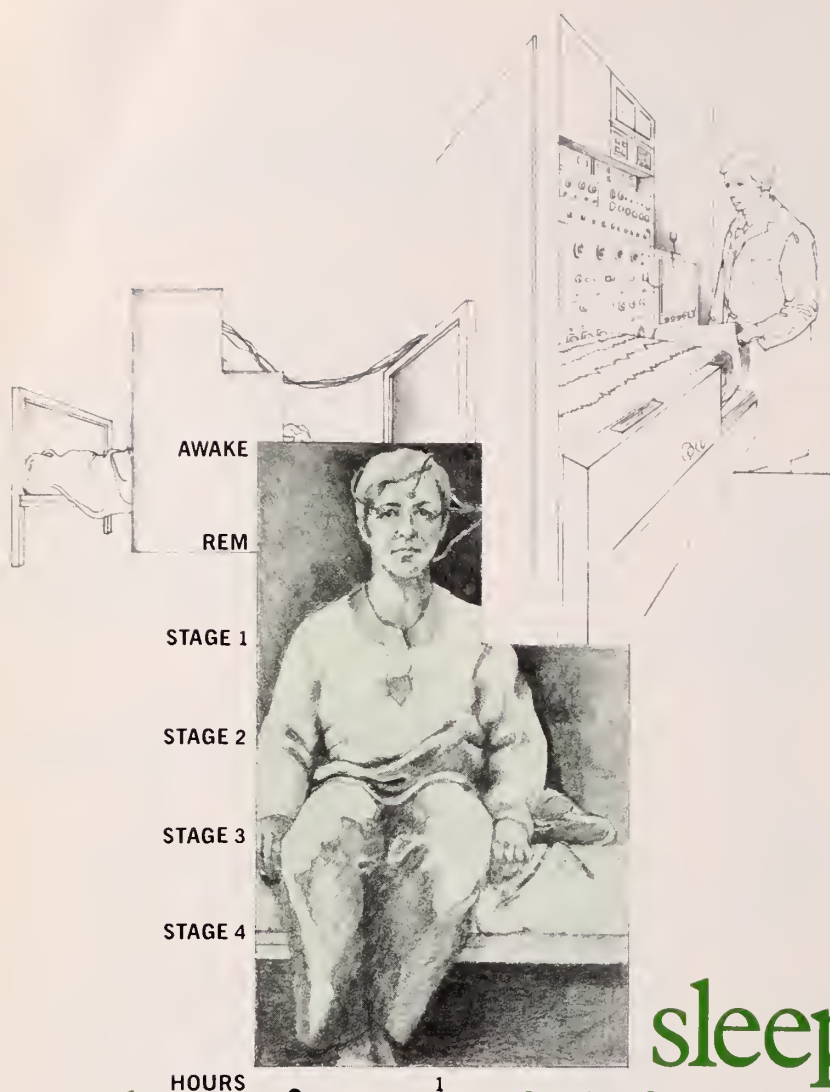
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Average Time Required
to Fall Asleep (4 Studies,
16 Subjects²⁻⁵)



confirmed by clinical studies in four geographically separated sleep research laboratories²⁻⁵

Using a 14-night protocol involving eight insomniac and eight normal subjects, four studies confirmed the sleep-inducing effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule induced sleep within 17 minutes. In all these studies, Dalmane induced sleep rapidly, reduced nighttime awakenings, and provided 7 to 8 hours of sleep without repeating dosage²⁻⁵

Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

Dalmane is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been noted most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted below.

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

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Is there a need for a drug compendium?

A drug compendium of the type I envision would fill a definite need for the practicing physician. Such a compendium would give him all the information necessary for using

a drug intelligently, and it would do so in a clear, concise, convenient, objective and balanced fashion.

What a Compendium Should Contain

I believe the compendium should inform the doctor what a drug will do, when he should use it for what type of patient, for how long, in what dose, what benefits his patient is likely to obtain, the risks involved, and cross-reactions with other drugs.

The information would be based on the package insert and have the same legal status. In fact, a complete compendium with complete and current information might even eliminate the necessity

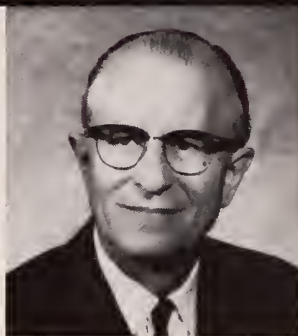
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A drug compendium, or preferably compendia, should, I believe, be private, not federal, in sponsorship. They should contain comprehensive listings of drugs available for prescribing. They should be single, legibly printed volumes of reasonable size, updated quarterly or semiannually and completely revised every year.

Function of a Compendium

A compendium should furnish the following information on drugs in the following order: indications for use, side effects, adverse drug reactions, contraindications, drug interactions, drug dosage and the dosage forms marketed. Drug prices should not be included because they vary so widely and change rapidly.

No compendium should set forth drugs of choice or discuss relative efficacy. Such questions must be left for the practicing physician to decide, whether on the basis of the medical literature, his own clinical experience, advice of colleagues, information supplied by manufacturers, and so on.

Nor should a compendium undertake to educate the doctor on how to use drugs. Rather, it must be a reference source designed primarily to refresh his memory as to drugs he may not use regularly. It

for a package insert in many instances. This would constitute a substantial saving for the manufacturer.

By a complete compendium, I do not mean a volume of prohibitive size. You don't need a book describing 25,000 products with an enormous amount of repetition. Rather, drugs should be arranged by class. Mutually applicable information would be provided, along with brief discussions pinpointing differences in specific drugs of that class. Listings would be cross-indexed in a useful way.

Other Available Documents as Sources of Information

Existing references such as PDR and the AMA Drug Evaluation are obviously useful but they are incomplete. Either they are not cross-referenced by generic name and do not group drugs with similar characteristics, or they do not list all the available and legally marketed drugs. And some of those omitted may be very useful.

should in no way imply control over the practitioner's prerogatives.

Why Another Compendium?

A practicable, single-volume compendium cannot, nor is it necessary to, include all drugs on the market today. From my practice of internal medicine for some 15 years, my experience as a consultant, and as a faculty member of four or five medical schools, I would estimate that a doctor uses only 30 to 35 drugs regularly. The 1972 Physicians' Desk Reference, incidentally, contained about 2,500 entries.

As to whether there should be a federal compendium, in my opinion, as stated earlier, the answer is easy—there should *not* be one. The proposal assumes that existing compendia are inadequate. We're not sure of that at all. Whatever its imperfections, the present drug information system in the U.S. is open, multifaceted, pluralistic and extensive. Good compendia exist, as well as other ample sources on drug therapy, ranging from journal literature through AMA Drug Evaluation to company materials. Not all physicians may use such sources as often or as well as they should, but that is the fault of the man, not of the sources.

In any event, rather than pro-

duce another book, it makes much more sense to work on improving existing compendia, and perhaps they could, as knowledge advances, include more accumulated clinical data and experience, and more information on drug interactions and adverse reactions.

On the other hand, drugs made by more than one supplier, tetracycline for example, may be fully described a dozen times in the same book.

Should Editorial Comments Accompany the Listings?

While perhaps PDR could be rearranged and cross-indexed with generics included, and while the AMA Drug Evaluation might also be modified and expanded, I am not sure that the end result would have all the attributes required for a useful compendium. At the same time, you would run the risk of amassing a voluminous and unwieldy tome.

Subjective judgments, in my opinion, have no place in a compendium. However, if there is substantial evidence based on a sound body of science concerning relative efficacy of several drugs, certainly that information should be included. The committee of experts compiling and editing a particular section would also have to assess

Implications of a Federal Compendium

Take a hard look at the implications of a federal compendium. It would have the force of law, virtually dictating what drugs to use and how to use them. In effect, it would be a regulatory document with legal or quasi-legal status, posing medical/legal problems similar to those the doctor may now encounter if and when he departs from the provisions of the package insert. A compendium under federal aegis would tend to restrict decisions on drug therapy to one orthodox level—a most dangerous trend for medicine.

New Compendium—A Medical Opinion

I detect no ground swell of initiative or support whatsoever for a federal compendium—or, for that matter, for a new compendium of any type. A 1969 PMA survey conducted by Opinion Research Corporation found that only 15 per

cent of those physicians interviewed felt a new compendium was needed. And a large majority did not favor the involvement of the federal government if one were to be created, preferring instead a nongovernmental consortium.

Sponsorship, Compilation and Editing

Producing a book like this would undoubtedly be difficult and demanding. It would obviously take a great deal of talent and expertise, and would require a varied and experienced group, ranging from writers and editors to highly skilled clinicians and pharmacologists. Style, format and clarity of language would play an important part in determining the usefulness of the book. And it should be updated periodically and completely revised annually.

I have no opinion whether the government or the private sector should sponsor and/or finance the compendium. What is most important is that the compendium be an authoritative, objective and useful source of information for the doctor to have at hand as a ready reference.

Even if we come to a time when the medical profession itself opts for a new kind of compendium, it should be handled and financed, ideally, outside both government and industry. Final review and editorial authority could be delegated, say, to specialty bodies and medical societies—but above all, *not* the government.

Surely the health care system in the United States has far more vital matters to consider than the extensive cost and effort that would have to go into the preparation and maintenance of a new, monolithic compendium, and especially one bearing the imprimatur of the federal government.

Opinion & Dialogue

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Vasodilan is not incompatible with any of these drugs—no treatment conflict has been reported. And, unlike other vasodilators, Vasodilan has not been reported to affect carbohydrate metabolism, liver function, or intraocular pressure—or to complicate treatment of diabetes, hypertension, peptic ulcer, glaucoma, or liver disease.

In fact, there are no known contraindications to the use of Vasodilan in recommended oral doses, other than that it should not be given in the presence of frank arterial bleeding or immediately postpartum.

Indications: Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.
3. Threatened abortion.

Final classification of the less-than-effective indications requires further investigation.

Composition: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.

Dosage and Administration: 10 to 20 mg. three or four times daily.

Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Adverse Reactions: On rare occasions, oral administration of the drug has been associated in time with the occurrence of severe rash. When rash appears, the drug should be discontinued. Occasional overdosage effects such as transient palpitation or dizziness are usually controlled by reducing the dose.

Supplied: Tablets, 10 mg.—bottles of 100, 1000, 5000 and Unit Dose; 20 mg.—bottles of 100, 500 and Unit Dose.

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In a little more than a year, the traditional "internship" will take its place alongside the Dodo bird. Having outlived its original intent, the internship will be fused with residency training, hopefully to produce better specialists and better specialty care.

Origins of the Decision to Integrate the First Graduate Year of Medical Education with an Approved Residency Program

Leonard D. Fenninger, M.D./Chicago*

Let me outline some of the factors that were involved in the decision to connect the internship with the residency. We are not talking about the disappearance of the internship as a structured program nor are we talking about the disappearance of an essential experience in clinical medicine after completing medical school. We are talking about a different set of relationships and a different mechanism for recognizing the quality of the first graduate year of medical education.

Many of you, I am sure, have read the report that was published in 1966 under the auspices of the Council on Medical Education of the House of Delegates of the AMA. This report resulted from a Commission that was established in 1963 chaired by Dr. John Millis. A number of recommendations made in that report had to do with various aspects of medical education, both graduate and undergraduate, as well as the continuing competence of the individual throughout his professional life. Prior to this time, the internship had been a one-year program accredited separately either from undergraduate medical education on the one hand or from residency programs on the other. The Commission's recommendation was to link the internship as part of a continuing experience available to medical students, rather than to have it isolated both from undergraduate education and from the residency in graduate education. In 1970 the House of Delegates adopted this recommendation to be effective by July 1, 1975.

Because of the general nature of all human beings, in which procrastination is among the highest of arts, most people paid relatively little attention until this year to the implications of this recommendation and its adoption

as AMA policy. As a result, there has been a great deal of misunderstanding over what is and what is not happening, a lot of anxiety, and a fair amount of emotion. I suspect some of the emotion is caused in part by fear of doing something different and in part by fear of having to get up in the middle of the night, among others.

In order to relieve some of this concern it might be helpful to look at how the internship came into being. Medical education in the United States required little clinical experience until the post World War I period. Most of the teaching was didactic and a number of schools were primarily "diploma mills." The AMA and the medical profession in general became concerned about the quality of medical care provided by people who lacked a sound background in medicine. They persuaded the Carnegie Corporation to undertake a study conducted by Abraham Flexner to look at the way medical education influenced the quality of care provided by the physician. As we know, the report placed major emphasis on the importance of science and clinical experience for the medical student. Largely as a result of the Flexner report, the internship burgeoned during the period between World War I and World War II. The third and fourth years of medical school became increasingly clinical and there was also an enormous growth in the specialization of medicine. Residencies in the various fields of medicine developed and the training

*Doctor Fenninger is Director, Department of Graduate Medical Education, American Medical Association. These remarks were made by the author to a statewide symposium at Rutgers Medical School sponsored by the Office of Continuing Medical Education, CMDNJ, the Association of Hospital Directors of Medical Education of New Jersey, and the Association for Hospital Medical Education.

following the completion of medical school lengthened.

After World War II, major changes began to take place in the physician's on-going education. It was during this period that the number of approved internships and residencies expanded rapidly. This was due in part to the fact that many of the doctors returning from the armed services realized there were definite advantages to being a specialist. If one were employed by the Veterans Administration, he received higher pay and a higher civil service rating. During World War II those doctors with specialty qualifications had more interesting assignments than those with no specialty. And with the advent of third party payers, particularly Blue Shield, the economic return of specialization became considerably higher.

For these reasons, and because World War II had grouped together a five-year supply of physicians who would otherwise have flowed through the internship and residency system, there was a tremendous demand for graduate positions with the result that many new ones were rapidly created and rapidly approved.

One of the interesting phenomena of any society, particularly in the United States, is that whatever is created is likely to remain in being forever, whether it is effective or not. So, the number of internships and residencies necessary to accommodate the doctors coming out of World War II continued gradually to increase from 1947 to the present time. At the same time, when that five-year bulge of physicians who had served in World War II disappeared, there were large numbers of internships and residencies that became vacant in this country.

One of the major factors in attracting foreign medical graduates to our shores was the exchange visitor program, created by The Fulbright Act of 1948. It institutionalized the feeling that the United States had a responsibility to assist nations that had been more seriously disrupted than we had by World War II. The availability of budgeted intern-

ship positions and the impulse to upgrade the competencies of foreign professionals resulted in a large inflow of foreign medical graduates. I believe New Jersey has received as many graduates of foreign medical schools as any other single state in proportion to its population and to the number of physicians.

From 1948 until the present day the length of time that United States graduates have spent in training beyond medical school has steadily increased until it now averages about three and a half years. People in medical practice and in medical education began to look at this. They began to say that the internship had every reason to be free standing because, when it was created, it was the one year of clinical training beyond medical school. It no longer holds this position even though it is an extremely important clinical experience. Nonetheless, we should seek ways to link it to subsequent clinical experiences, both in the informal and formal sense, with continuing education. The appointment of the Millis Commission stemmed from this idea.

If you reflect, you will realize that several specialties in many institutions had already linked the first year and subsequent years in residency through the "straight internship." In fact, for the past several years, the residency review committees in pediatrics, medicine, surgery, and obstetrics-gynecology have actually been the approving bodies for these straight internships. Even before the AMA's House of Delegates made its decision and before the Commission report was published, the transition was taking place. The report in effect codified principles and practices that were already widely accepted. The linkage of the internship and residency that will be a requirement as of July 1, 1975 has actually been a trend evolving over a long period of time. There has been a gradually increasing number of interns and residents, and program directors and teachers involved in integrated programs along with a gradual increase in the accreditation of such programs by residency review committees rather than by internship review committees.

In considering the type of first year programs that were necessary and desirable from the point of view of the candidates, it was evident that the students fell into four general groups: (1) There are always students who clearly know what they want to do to get through their training as rapidly as possible and to enter into their chosen specialty immediately on completion of medical school; (2) There is a group of students who recognize that their clinical experience in medical school has not been sufficient for them to feel comfortable in clinical situations. They wish to have either one or two years of general clinical experience after they finish medical school before entering a specialty; (3) There is always a group of medical students who have not made up their mind as to what they would like to do. They would like to leave a series of options open after their first graduate year; and (4) There are students who are entering fields that are relatively narrow clinically but in which a sound understanding of clinical medicine is of great importance. Fields such as radiology and anesthesiology are much broader now than they were ten years ago, but they are still relatively limited fields as compared with the broad spectrum of medicine. In these situations it is the student, as well as the program director, who recognizes the need for the candidate to come to his special program with a sound grounding in general medicine, if I may use that term.

So, with these four general categories of student candidates in mind, it was decided that the first year, linked to subsequent years of the residency, should offer a variety of experiences to the candidate. For want of better titles, the terms "categorical" and "flexible" were chosen. These terms are now firmly embedded in the literature. The Council on Medical Education has spent the last several months working on definitions with which ev-

eryone would agree. I believe we have arrived at definitions which are reasonably clear. The terms "categorical" and "flexible" apply to paths chosen by the candidate—not to the content of the first year. By this I mean a "categorical" first year or a "categorical" internship is a program that is sponsored by and leads to a single specialty residency program. It is designed, supervised and carried out by that specialty field and the expectation is that the person who enters it will go into that specialty. A "flexible" first year is one in which two or more specialties have agreed on a common first-year program which will allow the candidate on completion of that first year to enter either of these specialties, or any of the specialties that have agreed to plan jointly and to sponsor that first year. The first year will be reviewed by the appropriate Residency Review Committee as part of the residency or residencies which sponsor it at the time that the residency program is reviewed.

The content of the flexible first year must include at least four months of internal medicine, the remaining eight months being arranged according to the sponsoring residency programs and the needs of the candidates. The content of the categorical first year may include only a single field of medicine (similar to the straight internship) or it may include more than one field if the program director of the sponsoring residency decides that such diversification will improve the preparation of residents for practice. A diversified categorical first graduate year can be separately listed in the directory of approved programs and will be indicated by an asterisk.

The next few years, being transitional, will inevitably present problems for students, program directors and staff. It is my firm belief that the result will be sounder residencies, better education and better medical care of the people of this nation.

As paramedics, physician assistants, and nurse practitioners become a part of our system of health care delivery, it is interesting to read of China's "Barefoot Doctors."

China's Barefoot Doctors

G. L. Daniels, Ph.D., Upper Montclair*

The following report on an effort of the People's Republic of China to meet a critical need for medical personnel is based on a visit to China in June 1973. During that trip, several rural communes were visited and interviews were conducted with paramedics who are presently filling the gap between the supply of and the demand for highly trained personnel skilled in medical treatment.

Organization of Commune Health Facilities

Chinese communes are organized into production brigades, which are composed of as many as several dozen production teams. Paramedical personnel, "the barefoot doctors," are attached to production teams and brigade settlement centers, and in the larger communes, to a central commune clinic and/or outpatient hospital. Some of the largest communes either have, or are in the process of building, inpatient facilities as well.

Commune out-patient hospitals and brigade clinics are typically small, simple, austere buildings constructed of brick, stone, or adobe, some with dirt floors. None of the clinics observed had running water. However, commune out-patient hospitals have limited modern laboratory and x-ray facilities.

Relatively large pharmacies were found in commune hospitals, and fairly large pharmaceutical inventories were noted in the brigade clinics. In their field kits, the team-attached "barefoot doctors" carried approximately 40 to 50 different drugs and medicines. In the pharmacies of clinics and out-patient hospitals, herbal medicines were far more numerous than the few dozen familiar western-type medicinals, often numbering several hundred different kinds. Western-type drugs and medi-

cines, however, outnumbered native ones in the field kits of the "barefoot doctors."

Brigade clinics are exclusively staffed by paramedics. On the other hand, in commune hospitals there are x-ray and laboratory technicians, Chinese and "western-type" doctors, and "barefoot doctors." In one very large commune, with a population of 39,000, the total medical staff of the commune numbered 160, of which 90 were women. Thirty were medical doctors, twelve of whom had training in Chinese medicine; and eighteen were educated in the same manner as western physicians. The latter group most often had undergone three years of university study and a few had graduated after a five-year program. The 130 other staff members included "barefoot doctors" and miscellaneous medical personnel.

Commune hospitals are staffed by medical personnel, including the "barefoot doctors," around the clock by rotating shifts. Brigade clinics are normally manned by "barefoot doctors" only, during some of the work-day hours; the rest of the paramedic's work-day is spent in various agricultural and processing activities. In this way they make themselves available to teams working in the fields or to communal processing plants. Another task of the "barefoot doctors" is the tending of herb gardens which produce a limited number of the herbal medicines, some of which are converted into extracts and pills by paramedics in the central commune hospitals.

The Typical "Barefoot Doctor"

The typical "barefoot doctor" is likely to be a young man or woman in the early twenties. Training usually includes a variety of study and apprentice periods both in the communes and in the city hospitals. Each of these training experiences may last from a few weeks to one year. The following composite profile of a

*Dr. Daniels is Professor of Biology, Montclair State College.

"barefoot doctor" is based on interviews with several of them.

Hong Ying Barefoot is 23 years old. His father is a worker in one of the commune-related factories and his mother is a farm worker. A graduate of the Lower Middle School (the American equivalent of our junior high school), he lives at home and is unmarried. He has been a paramedic for the last four years. His day starts at 5 a.m. when he has breakfast and works in his herb garden until 7 a.m. Hong Ying Barefoot will then be on brigade clinic duty from 7 until 11:30 a.m. In his normal work-day he sees about 40 patients, 10 or 15 of whom may require acupuncture treatment. Only during the busiest harvesting time, when many city students, workers and cadres stream in to help, will Hong Ying be on clinic duty all day. Normally, he rests from 11:30 a.m. to 2:30 p.m. On an average day, he will spend half of his work-hours in the fields or processing plants, carrying his field kit with him. On certain days he may have night clinic duty in the commune hospital, and on such days he will work a ten hour shift from 8:30 p.m. through to morning.

Hong Ying Barefoot's medical training included a twenty-day period of initial instruction by a visiting medical team from a city hospital. Following this initial training period, he spent two weeks with doctors of the People's Liberation Army, in which the tradition of "barefoot doctors" or "feldscheers" goes back to the early civil war days long before communes existed. Two more weeks of instruction were given in an institute for Chinese (non-western) medicine where Hong Ying learned acupuncture. Next, he spent six months in a medical college learning clinical routines, such as measurement of blood pressure and pulse, and finally he had a two-months' internship in a district hospital. These training periods are not continuous, but are spaced out over several years.

The content of the paramedic's field kit is indicative of the type of medical treatments he is likely to give. The kit is a square box measuring 7 x 10 x 12 inches, and containing a stethoscope, sphygmomanometer, tourniquet, bandages, adhesive tape, hypodermic syringes and needles, antiseptics, tongue depressors, scissors, swabs, forceps, several acupuncture needles and a writing pad. Medications include 26 different kinds of ampules (adrenaline, atropine, etc.), mercurochrome, iodine, alcohol, turpentine, ammonia, penicillin, aspirin, and miscellaneous materials described as diarrhea pills, analgesic ointments,

heatstroke medicine, dizziness ointment, and so on. Salt tablets for the prevention of heat prostration are not in his inventory. Chinese medical practice uses bean-water for the same purpose. Provisions for minor surgical procedures, such as the suturing of wounds are not among the contents of the field kit.

Midwifery is practiced by only a limited number of specially trained "barefoot doctors." Childbirth is optionally at home or in the commune hospital. Birth control counseling, however, is part of the normal duties of all "barefoot doctors."

Medical services in China are virtually free. Commune members pay an annual fee of one yuan (about 50 cents in U.S. currency) for all medical services, including treatments or operations in city hospitals. Only eye glasses and false teeth require slight additional payments. "Barefoot doctors," like other commune members, are paid according to the number of work points they accumulate during the year. The value of each work point fluctuates from year to year according to the net earnings of the entire commune.

A Partial Answer

The vast population of China, which is 80 per cent rural, could not possibly be served today by fully trained medical doctors. In the past, the rural population simply had no medical services worth mentioning. "Barefoot doctors" are not the ideal answer to the problems, but they are unquestionably an improvement over previous conditions. Other developing countries with medical personnel shortages probably could benefit from adopting a training program for paramedics, such as these "barefoot doctors."

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NEW JERSEY DOCTORS' NOTEBOOK

Account of Stewardship of the President*

Matthew E. Boylan, M.D.

This year with the indulgence and concurrence of the House of Delegates of The Medical Society of New Jersey, I have adopted the principle of submitting one combined Presidential Report and President's Farewell Address, rather than give you two philosophical discussions of a departing president. I hereby submit what I have decided to call "The Account of Stewardship of Your President for the Year 1973-74."

One year ago this week I assumed the office of the President of The Medical Society of New Jersey. At that time I issued a call for unity within the Society. We started off well in that vein. We had recently formed the New Jersey Foundation for Health Care Evaluation. The officers and the executive committee of the Foundation labored long and hard. There were innumerable board meetings and committee meetings. The Foundation was incorporated. Funding was provided on a monthly basis. All seemed to be progressing smoothly and well until Secretary Weinberger suddenly announced that there would be not one but eight PSRO's in New Jersey. All is not lost. The Foundation may become the center, the heart, and the data base in its function as the "umbrella support center" for all eight PSRO's. We must continue to be united and function under one unified body with eight components or else we may fail and have some governmental or other corporate body take over this function. Then we will no longer have control but instead shall be directed, or dictated to as vulnerable individuals. This would certainly result in divisiveness, and fragmentation, and, ultimately, I am afraid, in dissolution and abandonment of our united organization and those principles to which we have adhered and which we hold and have

held so loftily these past two hundred and seven years. I do not believe we should take this situation lightly nor do I believe we should surrender our individuality so apathetically. I strongly request you to consider consolidation of eight units forged under *one* central organization that can provide guidance and unification. This is available to you through the continued existence of the New Jersey Foundation for Health Care Evaluation in New Jersey. Please give us your support.

The Board of Trustees has been vitally interested in the topic of "Certificate of Need." It submitted a definition of the "private practice of medicine" which the Health Care Administration Board of the State Department of Health does not wish to accept. The Board of Trustees, however, shall not vary from this interpretation without compelling justification. There has been a contradictory interpretation of "Certificate of Need" introduced by the Hospital Association of New Jersey. This view is at variance with the original concept of the law, and I am convinced the Medical Society should continue to oppose it as it pertains to the private practice of medicine.

In the last two years the Board of Trustees inaugurated a program of inviting two or three presidents of county medical societies to attend the monthly meetings of the Board of Trustees of The Medical Society of New Jersey, so that the individual county society officers might observe the deliberations of the Board and the functions and operations of the Committees and Councils of the State Society. The communications forwarded from the county societies are also discussed and deliberated here. In the past year I have also invited the executive secretaries of the county societies to attend the monthly meetings of the Board of Trustees with their presidents and

* Address of retiring President, delivered before the 1974 House of Delegates, MSNJ, Second Session, May 12, 1974, Atlantic City

presidents-elect so that they may know and understand the continuum of administration and function within the Society.

Recently upon recommendation of the Council on Legislation, I appointed an Ad Hoc Committee, composed of five members, for the express purpose to "study and redefine the role and function of the Council of Legislation." The impetus for the appointment of this Ad Hoc Committee was brought to bear by the recent load placed upon the Council.

In this meeting there were referred for study, examination, and recommendation two hundred and fifty plus legislative measures. This has become an unmanageable burden. A streamlining function must be considered, and this task has been referred to the Ad Hoc Committee, as recommended.

Last year the House of Delegates mandated an expanded, aggressive public relations program. In this area, a new executive assistant in charge of public relations was retained. Within a short period of time this new executive assistant and the Council on Public Relations became involved over a regionally televised program concerning the practice of medicine. Through their vigorous pursuit, the producers of the program apologized for parts of the presentation and the sponsor of the program withdrew further financial support. As a result of this action a new meaningful program of public relations is in the making. Locally, on the state educational channels a whole series of medical subjects has been and is being continuously presented

for viewing under the auspices of the Council on Public Relations.

Along the lines of accountability as your President, I would like to present a record of the last year:

First, I will hopefully be recorded as an active, participating, and at times, aggressive President. I did not assume the office merely for prestige and honor, but undertook the title to give my best to this Society. Now I shall give you an accounting:

Within this year 1973-74 I have attended 31 meetings at The Medical Society of New Jersey headquarters; 49 meetings outside the Medical Society but within the State of New Jersey; 12 meetings outside the State of New Jersey to such places as Maryland, Pennsylvania, Chicago, American Medical Association, California, and Delaware. In all I attended and participated in 104 meetings, and many and varied programs including testimony before State agencies, Governors' panels and committees, in behalf of Medicine in general and The Medical Society of New Jersey in particular.

I am most honored and appreciative of having been elected by you, the House of Delegates of The Medical Society of New Jersey, and of having served as your one hundred and eighty-third President.

I have given you an account of my stewardship and now hand over the office to your new President, James A. Rogers, M.D., of Passaic County.

Support the Society for Relief of Widows and Orphans

(P.O. Box 95, Belleville, N.J.)

Trustees' Minutes

April 21, 1974

PSRO Repeal . . . Received a report that a poll of Congressmen and Senators revealed that Congressman Thompson was opposed to repeal of PSRO "until there is clear evidence that the law is not in the best interests of the Nation;" from Congressman Sandman that he shared our objections to the unwarranted intrusion upon the privacy of physicians and patients that is created by PSRO and favored repeal; and from Congressman Helsotowski that he also favored repeal.

Medical Examination of Commercial Vehicle Drivers by Chiropractors . . . Received from the Federal Bureau of Motor Carrier Safety the following ruling on use of chiropractors for medical examination of commercial vehicle drivers:

Since the safety of the public depends upon the accuracy of the medical examiner's conclusions, reasonable doubts as to the education and skill of chiropractic physicians must necessarily be resolved by leaving the present rule unchanged. On the basis of available evidence, the Director has concluded that there is reasonable doubt concerning the ability of chiropractors to make an adequate physical examination and diagnosis as required by the Regulations. Accordingly, the Bureau declines to amend the Regulations as prayed for in the petition for rulemaking. (Federal Register, Volume 39, No. 41.)

Chiropractic Coverage Under Medicaid . . . Received a communication from Commissioner Klein (I and A) stating that "it is clear that there has been a misunderstanding of the intent and application of that Manual (listing chiropractic services covered under Medicaid), and, therefore, Mr. Jones, Director of the Division of Medical Assistance and Health Services, has advised me that those clauses in the Manual which have led to misunderstandings will be stricken."

Note: The above is in response to a communication from MSNJ taking issue with a number of chiropractic services that were being covered under Medicaid as being an unwarranted expansion of the chiropractic license by the Department of Institutions and Agencies.

Abortion Regulations . . . Approved the following recommendation and directed that the

Executive Committee review the statement to be made by Felix H. Vann, M.D., who will be representing the New Jersey Obstetrical and Gynecological Society at the public hearing (April 30) on the State Department of Health's proposed rulings concerning standards for first, second, and third trimester outpatient abortion facilities and that, if it follows MSNJ policy related to abortion, Dr. Vann be requested also to represent MSNJ.

That the Board of Trustees authorize the Executive Committee to (1) study the Second and Third Trimester Regulations applicable to Outpatient Abortion Facilities, and (2) submit a statement thereupon to the State Department of Health consistent with MSNJ policy and the dictates of sound medical practice.

Physician Abuses in Compensation and Negligence Cases . . . Approved the following recommendation, in response to a request from the State Commission of Investigation, that MSNJ undertake a study to formulate possible standards, guidelines, and procedures to be followed by treating physicians in compensation and negligence cases, directed to ending the practice of setting high numbers of treatments in compensation cases without providing for re-evaluation of the cases:

That the question of guidelines be referred to the Council on Medical Services and specific incidents of transgressions be referred to the appropriate judicial committee.

Joint Practice Committee with New Jersey State Nurses' Association . . . Approved an Executive Committee recommendation that the following recommendation from the Joint Practice Committee with the New Jersey State Nurses' Association and the excerpt be concurred in by the Board.

That the excerpt contained in the Report of the Secretary's Committee to Study Extended Roles for Nurses be approved as a working document to be utilized by the Joint Practice Committee to establish individual joint practice committees in hospitals and medical centers throughout the State.

Note: The "excerpt" refers to a statement by the committee to delineate elements of nursing practice in primary, acute, and long-term care and to indicate, for purposes of illustration, those elements for which nurses now generally have primary responsibility, those for which responsibility is exercised by either physicians or nurses (or by a member of one of the allied health professions), and those responsibilities that generally fall outside the practice of nurses who

are not now utilized or prepared to practice in extended roles.

Council on Legislation . . . Approved as amended, the report of the Council on Legislation, including the recommended positions on current legislation.

The following list presents the official position of The Medical Society of New Jersey regarding additional bills currently in the Legislature.

- S-269 —To require the State Department of Health to test all newborn infants for phenylketonuria. *DISAPPROVED*, because not all children are susceptible to the malady and also because the present testing procedure is not precise or dependable.
 - S-350 —To require psychological examinations before persons are appointed to a police department. *ACTION DEFERRED*, pending an opinion from the Council on Mental Health.
 - S-528 —To prohibit use of Medicaid funds for abortion services except where the mother's life must be preserved. *DISAPPROVED*, because this bill, as written, is not in conformity with MSNJ's official position on abortion and because Medicaid patients are entitled to the same quality of health care.
 - S-546 —To provide that any condition or impairment of health to a uniformed member of a paid fire department caused by hypertension, heart disease, or tuberculosis, shall be deemed to be an occupational disease. *ACTION DEFERRED*, pending an opinion from the Council on Medical Services.
 - S-658 —To prohibit review of a workmen's compensation award on the grounds that the disability has diminished where the injured employee has submitted to rehabilitation. *APPROVED*
 - S-665 —To redefine various terms with respect to the practice of nursing. *APPROVED*
 - S-835 —To regulate the practice of acupuncture, provide standards, qualifications and certification of practitioners. *APPROVED*
 - S-897 —To authorize the Commissioner of Health to provide for the care and treatment of drug addicts by public and private facilities, including out-patient care and rehabilitation treatment and to appropriate \$300,000. *APPROVED*
 - S-902 —To provide that nothing in the act concerning Health Care Facilities Planning Act shall be so construed as a delegation of authority to control charges made by health care facilities for services rendered except as otherwise provided. *APPROVED*
 - S-903 —To provide that no certificate of need shall be issued or denied without approval of the board and in the event an adverse recommendation has been issued by the State Health Planning Council, the applicant shall receive notice and be granted an opportunity for hearing. *DISAPPROVED*, because this bill would complicate the effective administration of a law that is presently complicated enough.
 - S-923 —To establish a division of alcoholism in the Department of Health, to create an advisory council, to provide for licensing of alcoholic treatment facilities, to prescribe procedures concerning arrest of an intoxicated person, to authorize establishment of a service force and to repeal and prohibit municipal ordinances prescribing penalties for public intoxication. *APPROVED*
 - S-932 —To regulate the practice of dentistry. *DISAPPROVED*, because it would impose excessive powers in the Board of Dentistry and would enable them to set up broad and oppressively detailed bureaucratic regulations which would prohibit or unduly limit the licensed practitioner's right to exercise and be guided by his own best professional judgment.
 - S-934 —To permit pharmacists to use discounts or rebates in sales of drugs or medications to disabled persons or those 65 years of age or older. *APPROVED*
 - S-936 —To create a guaranteed medical education loan program within the Higher Education Assistance Authority and to appropriate \$50,000. *APPROVED*
 - S-953 —To provide that it shall not be necessary for a physician to be present on premises during the bleeding of a donor of blood at a mobile bank provided the physician will arrive within 15 minutes of a call for assistance. *APPROVED*
- Note:* The Board changed the Council's position of "disapproved because a physician should be in attendance" to "approved."
- S-989 —To provide for the establishment of day care centers and services for the elderly. *APPROVED*
 - S-997 —To provide that any person who smokes a lighted cigar, cigarette or tobacco in any form in any public meeting room, elevator, theater, public library, or museum where smoking is prohibited shall be a disorderly person. *APPROVED*
 - S-1003 —To require continuing education for registered optometrists in order to qualify for renewal certificates of registration. *NO ACTION*
 - S-1004 —To establish a New Jersey Property-Liability Insurance Guaranty Association Act to avoid financial loss to policyholders because of insolvency of an insurer. *APPROVED*. LAW c. 17 (1974)
 - S-1021 —To prohibit the Department of Environmental Protection and the Commissioner from making any rule or regulation directing mandatory fluoridation of a public potable water supply or adjusting the fluoride content. *DISAPPROVED*, because MSNJ is in favor of mandatory fluoridation as a public health measure.
 - S-1032 —To establish a Mental Treatment Standards Committee and Patient Treatment Review Board in the Department of Institutions and Agencies. *ACTION DEFERRED*, pending an opinion from the Council on Mental Health.

- S-1033 —To provide for the employment of patients in facilities for the mentally ill and in State and county residential services for the mentally retarded. *ACTION DEFERRED*, pending an opinion from the Council on Mental Health.
- S-1034 —To provide that the Department of Institutions and Agencies shall establish a method for determining ability to pay for services for the mentally ill and the commitment of the mentally ill and to provide that the Department in cooperation with the county adjuster shall arrange for commitment hearings. *ACTION DEFERRED*, pending an opinion from the Council on Mental Health.
- S-1038 —To require a chiropractor using vibratory, massage, traction, diathermy, ultrasound, or other mechanical instruments to be registered as a physical therapist. *APPROVED*
- S-1051 —To extend immunity and non-disclosure provisions for medical audit, tissue and mortality review committees. *APPROVED*
- A-168 —To require, in place of permit, employment of an optometrist as school vision examiner and a physician to be known as school hearing examiner. *DISAPPROVED*, because the school physician already has the obligation to screen for physical defects, including impairment of vision. The additional requirement of an optometrist or a physician licensed to practice medicine in the State of New Jersey would, in consequence, be an unjustifiable and expensive redundancy.
- A-397 —To provide that an act to cause miscarriage of a pregnant woman is justifiable when committed with her consent by a duly licensed physician acting within 24 weeks of the beginning of the pregnancy or under a reasonable belief such is necessary to preserve her life. *DISAPPROVED*, as written, because the bill is not compatible with the following official position of The Medical Society of New Jersey adopted by the House of Delegates in May 1972:
- (a) That there be no restriction upon the performance of abortion up to the end of the 16th week from commencement of pregnancy, except those of good, safe, medical practice.
 - (b) That the requirements for the performance of abortion be: (1) that the pregnant woman gives her consent; (2) that, if married, her husband either concur or sign a release; (3) that her physician agree that her health would safely permit it, or state that her physical or mental health requires it.
 - (c) A pregnant woman, age 18 or over, should not be required to obtain parental or guardian consent for abortion.
 - (d) Pregnant girls under age 18 should have parental or guardian consent for abortion.
 - (e) Abortions should be performed only in those areas of hospitals where adequate surgical practice can be assured by competent medical personnel.
 - (f) No physician shall be required to perform an abortion, nor shall any institution be required to allow an abortion to be performed within its walls.
- (g) No physician or medical institution can be declared liable for having performed an abortion provided that appropriate written permission was obtained and the procedure was done according to accepted standards.
- (h) No abortion shall be permitted in New Jersey on any woman who is not a bona fide resident of the State.
- (i) No advertising or solicitation of patients for abortions, by direct or indirect methods, in or outside the State of New Jersey, shall be permitted.
- A-520 —To create a State Board of Acupuncture in the Division of Consumer Affairs to regulate the practice of acupuncture and the licensing thereof. *DISAPPROVED*, in favor of approval of S-835.
- A-568 —To provide for an examination of members of the police department before appointment thereto by a licensed practicing psychologist. *ACTION DEFERRED*, pending an opinion from the Council on Mental Health.
- A-613 —To establish a division of alcoholism in the Department of Health, providing for a director and assistant to the director thereof, creating an advisory council on alcoholism, providing for the licensing of alcoholic treatment facilities, prescribing procedures to be followed concerning the arrest of an intoxicated person, authorizing the establishment of a service force, prohibiting and repealing county and municipal ordinances and resolutions prescribing penalties for public intoxication. *APPROVED*
- A-886 —To increase weekly maximum workmen's compensation benefits for permanent partial disabilities to 2/3 of average weekly wages of employees covered by the unemployment compensation law, to increase funeral allowances, to require free choice of physicians, to establish a Workmen's Compensation Board of Appeals and other changes. *APPROVED*
- A-1014—To repeal R.S. 45:14-16 which requires that a pharmacy prescription be strictly followed when it is being compounded, filled, dispensed or sold. *ACTIVE OPPOSITION*, because it interferes with the practice of medicine and the physician-patient relationship. The physician and not the pharmacist is responsible for diagnosis and treatment.
- A-1182—To prohibit use of Medicaid funds for abortion services except where a mother's life must be preserved. *DISAPPROVED*, because this bill, as written, is not in conformity with MSNJ's official position on abortion and because Medicaid patients are entitled to the same quality of health care.
- A-1257—To require pharmacists to list drugs and medicines by generic names and permit them to substitute brand names for the same prescribed named drug with the notification of the doctor if it reflects a lower cost to the consumer. *ACTIVE OPPOSITION*, as written. The Council directed that a conference with the sponsors of the bill be held to seek satisfactory amendments.

Note: The Board changed the Council's position of "disapproved as written" to "active opposition."

A-1284—To redefine various terms with respect to the practice of nursing. *CONDITIONALLY APPROVED*, provided the following language is added to the bill:

This act in no way authorizes nurses to practice medicine except as provided in R.S. 45:9-21 (k).

A-1294—To permit hospitals or other health care facilities to refuse or to allow performance or participation in abortions. *APPROVED*

A-1311—To provide that no person shall advertise or sell any drug, compound, or medicine without disclosing on the label of the package or bottle the generic and brand name, to permit omitting the generic or brand name if the physician explicitly states on the prescription that no identifying names should be used. *APPROVED*

A-1332—To provide that unless the prescriber explicitly specifies a brand name the pharmacist may dispense the same drug under its generic name if it reflects a lower cost to the customer. *APPROVED*

A-1343—To provide that no dentist and no professional dental service corporation shall charge a patient an extra fee for services in completing a dental claim form in connection with a health insurance policy. *NO ACTION*

A-1375—To provide that the consent to medical or surgical care by a physician or to services by a public or private hospital or public clinic by a person 18 years or more of age shall be valid and binding. *APPROVED*

A-1390—To provide that any person who operates a motor vehicle shall be deemed to have given his consent to the taking of blood and urine samples for determining the content of drugs in his system. *APPROVED*

A-1413—To provide for a New Jersey Property-Liability Insurance Guaranty Association Act to avoid financial loss to policy holders and claimants because of insolvency of an insurer. *APPROVED*

A-1450—To provide for a binding referendum to ascertain preference of voters for mandatory fluoridation of potable water supplies. *DISAPPROVED*, because MSNJ is in favor of mandatory fluoridation as a public health measure.

A-1464—To establish requirements for receiving a first aid or rescue squad member's certificate. *NO ACTION*

A-1501—To provide that hospital service corporation family type contracts for services applicable to children shall be payable with respect to a newly born child of the subscriber or his or her spouse from the moment of birth. *APPROVED*

A-1502—To provide that medical service corporation family type contracts for services applicable to children shall be payable with respect to a newly born child of the subscriber or his or her spouse from the moment of birth. *APPROVED*

A-1503—To provide that health insurance policy coverage for a family member or dependent on an expense incurred basis shall also provide

that benefits applicable for children shall be payable with respect to a newly born child of the insured from the moment of birth. *APPROVED*

A-1523—To provide immunity to county and municipal hospitals up to \$10,000 of damages for negligence. *APPROVED*

A-1528—To require the separation of solid waste according to food wastes, paper and similar combustibles, glass, metals and other non-combustibles under regulations for disposal prescribed by the Commissioner of Environmental Protection. *NO ACTION*

To be noted and filed:

SJR-19—To create a council to formulate a program for the dissemination of public information concerning drugs and drug abuse.

SCR-105—To memorialize Congress to enact legislation to assure emergency allocation of chlorine and other chemicals and substances in short supply essential for treatment of water pending before the Interstate and Foreign Commerce Committee.

A-1331—To authorize first aid and rescue squad workers to display special flashing blue lights on their cars when responding to emergencies.

ACR-129—To create a special legislation commission to study methods of upgrading intergovernmental cooperation in New Jersey for developing and conducting drug abuse rehabilitation, prevention, and treatment programs.

School of Professional Psychology . . . Voted to disapprove the following recommendations from the Council on Mental Health, since both the New Jersey Psychiatric Association and the Council on Mental Health favored the location of the School at Rutgers University and it would be extremely difficult to now challenge the degree-granting privileges of the State University.

1. That MSNJ take active opposition to the granting of the degrees of Doctorate and/or Masters in Mental Health; and

2. That MSNJ oppose the Doctorate in Mental Health Administration.

Physician Impaired by Psychiatric Disorders . . . Approved the following recommendation of the Subcommittee on the Sick Physician and directed that it be referred to the Council on Legislation and the Council on Mental Health for study of the proposals contained in the report (along with the draft of legislation proposed by the State Board of Medical Examiners on this topic) with emphasis on the primary objective which is rehabilitation of the sick physician.

That the Board of Trustees implement the report of the Subcommittee on the Sick Physician by setting up a Committee from the Council on Mental Health and the Council on Legislation to write appropriate legislation to accomplish the steps listed in that report.

Ad Hoc Committee to Study and Redefine the Role and Function of the Council on Legislation . . . Noted that the President had appointed, in accordance with the action of the Board of Trustees on March 17, 1974, the following to the above-named committee:

Meyer L. Abrams, M.D.
Winton H. Johnson, M.D.
John S. Madara, M.D.
Henry J. Mineur, M.D.
Daniel J. O'Regan, M.D.

New Jersey Foundation for Health Care Evaluation . . . Approved the following recommendation from the Committee on Finance and Budget:

That the Board of Trustees approve a special per capita assessment of ten dollars (\$10) to serve as a grant to the New Jersey Foundation for Health Care Evaluation; that this special per capita assessment be set in addition to, and not as part of, the budgetary assessment; and that both be paid at the same time.

Blue Cross-Blue Shield Coverage to Employees of Physicians . . . Approved the following recommendation from the Committee on Medical Defense and Insurance:

That The Medical Society of New Jersey offer Blue Cross-Blue Shield Rider "J" coverage to all employees of physicians participating in the statewide program, as well as the employees of The Medical Society of New Jersey and the component medical societies.

Catastrophe Medical Care Programs . . . Approved the suggestion of the Committee on Medical Defense and Insurance that a proposed major medical program offered by Blue Cross-Blue Shield (represented by Donald F. Smith and Associates) and a statement from the Blanksteen Agency on the present plan administered by them be reviewed by the Committee for comparison and decision at a future meeting.

BC-BS Coverage for Widows of Physicians . . . Approved the following recommendation from the Committee on Medical Defense and Insurance, as amended by the Board (italics indicate amendment):

That the Board of Trustees of MSNJ inform Donald F. Smith and Associates to request Blue Cross-Blue Shield to extend coverage *without interruption* to all widows of participating physicians.

Liability Insurance . . . Approved the following recommendations from the Committee on Medical Defense and Insurance:

That the Board of Trustees approve a rate increase of percentages for the classes as shown in Column A.

Note: Column A indicated the following increases: Class 1 (non-surgical practice)—15%; Class 4 (general and specialty surgery)—12½%; Neurosurgery—200%; and Orthopedics—80%.

That the Board of Trustees authorize the Joseph A. Britton Agency to write a deductible clause for professional liability insurance of \$5,000 per claim for medical groups encompassing 20 physicians or more, with the individual policies to be written according to their individual rate.

Committee on Emergency Medical Care . . . Approved the following recommendations from the Committee on Emergency Medical Care:

1. That a special delegation be appointed to meet with the Governor and explain the purpose and need for an Advisory Council on Emergency Medical Services.

2. That MSNJ write to the Governor, United States Secretary of State, and New Jersey Legislators in the Congress, indicating that we are opposed to the re-cultivation of the poppy in Turkey, and that the Federal Government should use its full economic force to prevent the re-cultivation of the poppy. If Turkey does not adhere to the recommendation, we would urge that all aid to the Government of Turkey be suspended.

3. That the Board of Trustees prepare an appropriate resolution for submission to the AMA House of Delegates incorporating the intent of aforementioned principles on a national level.

Phase IV Regulations . . . Noted that replies continued to be received in response to President Boylan's letter protesting Phase IV regulations and that the overwhelming response is against the extension of the Economic Stabilization Act as it pertains to the health care industry.

State Board of Institutional Trustees . . . Directed that a communication from the State Board of Institutional Trustees requesting names of candidates for appointment to the various boards of trustees of institutions for the mentally ill, the mentally retarded, juvenile and adult offenders, and the tubercular

be referred to the county medical societies for suggestions.

MSP Board of Trustees Nominees . . . Directed that the following nominees submitted by MSP for three-year terms on that Board of Trustees be sent to the 1974 House of Delegates:

Name	Type of Practice	Member of Component Society
Edwin H. Albano, M.D.	Pathologist	Essex County
William M. Chase, M.D.	Internist	Essex County
Lloyd M. Felmly	Retired Newspaper Editor	—
John Kelley	Labor Leader	—
Samuel J. Lloyd, M.D.	Medical Consultant	Mercer County
Theron L. Marsh	Banker	—
Zelda Paulsen	Businesswoman	—
Rudolph C. Schretzmann, M.D.	Obstetrician	Bergen County
Charles O. Tyler, M.D.	Pediatrician	Camden County

PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

INTERNAL MEDICINE—M. El-Kharboutly, M.D., 154 Belmont Avenue, Apt. 402, Jersey City 07304. Cairo University 1959. Board eligible. Institutional or solo. Available July 1974.

Syed A. Q. Jafri, M.D., 390 First Avenue, Apt. 11-H, New York 10010. Liaquat Medical College (Pakistan) 1965. Board certified. Group, partnership, solo. Available July 1974.

Puliadi Jothikumar, M.D., 660 East 98th Street, Brooklyn 11236 (Apt. 7C). Madurai Medical College (India) Board eligible. Group or hospital. Available July 1974.

Yi-Nan Chou, M.D., 1900 Hopkins Road, Apt. 3, Richmond, Virginia 23224. Taipei Medical College (Taiwan) 1967. Board eligible. Subspecialty, cardiology. Group, partnership, solo, or hospital. Available July 1974.

Kedar N. Kapoor, M.D., 1824 Country Club Drive, Cherry Hill, New Jersey 08003. K. G. Medical College, Lucknow (India) 1960. Subspecialty, gastroenterology. Board eligible. Group or partnership. Available July 1974.

M. Rostamian, M.D., 15 South 9th Street, Newark 07107. Isfahan (Iran) 1967. Board eligible. Partnership, solo. Available January 1975.

Ernest T. Bajpai, M.D., 111 East Mont Lane, Sickler-ville, New Jersey 08081. Prince of Wales (India) 1955. Board certified. Group, partnership, or association (preferably incorporated) Available July 1974.

ORTHOPEDIC SURGERY—Kiran J. Dave, M.D., 27 Abner Court, Bridgeport, Connecticut 06606. Baroda (India) 1967. Board Eligible. Group or partnership. Available July 1974.

Richard G. Traiman, M.D., 210 Locust Street, Philadelphia 19101. Jefferson 1967. Board eligible. Solo. Available July 1974.

OTOLARYNGOLOGY—Bruce Selden, M.D., 7836 Highway 51 North, Millington, Tennessee 38053. Chicago Medical School 1967. Board certified. Group, partnership, or association. Available June 1975.

PATHOLOGY—Pastor C. Gomez, M.D., Route 17-A, Greenwood Lake, New York 10825. Santo Tomas 1946. Group. Available.

Jose F. Sotomayor, M.D., 11615 Radford Lane, Houston, Texas 77072. San Marcos 1967. Board eligible. Group, associate, or institution. Available September 1974.

PEDIATRICS—Arvinda K. Dave, M.D., 27 Abner Court, Bridgeport, Connecticut 06606. Baroda (India) 1967. Board Eligible. Group or partnership. Available July 1974.

Victoria Toma-Baciu, M.D., 86-11 148th Street, Jamaica, New York 11435. Faculty of Medicine (Rumania) 1951. Associate, group, institutional, clinic. Available July 1974.

SURGERY—Noel M. Doromal, M.D., 289 Slocum Way, Fort Lee 07024. Santo Tomas 1967. Board eligible. Group or solo. Available August 1974.

Riaz Hussain, M.D., 660 East 98th Street, Brooklyn 11236. King Edward College (Pakistan) 1958. Board eligible. Available July 1974.

Boonlua Lucktong, M.D., 26 Elkhorn Street, Welch, West Virginia 24801. Siriraj Medical School, Bangkok (Thailand) 1964. Board eligible. Group, partnership, hospital. Available July 1974.

P. I. Mathew, M.D., 97-15 Horace Harding Expressway, Rego Park, New York 11368. Trivandrum Medical College (India) 1965. Board certified. Group, Solo, or partnership. Available July 1974.

UROLOGY—Hau Hsien Chang, M.D., 316 Marengo, Apt. I-C, Forest Park, Illinois 60130. Taipei Medical College 1966. Group, partnership, or solo. Available August 1974.

Alexander R. Dimond, M.D., 227 Garfield Place, Brooklyn 11215. Downstate Medical Center 1969. Board eligible. Partnership or group. Available July 1974.

CMDNJ Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

In a few months the new freshman class of the College of Medicine and Dentistry of New Jersey will be checking in to begin four years of intensive study. For these few hundred highly qualified and motivated individuals the battle is won, at least in part. They're in. And, with diligence and hard work they will complete their structured period of study and receive degrees as doctors in medicine, dentistry, or the biomedical sciences.

In an effort to determine who gets into medical and dental college, we recently developed a booklet that contains a statistical profile of the 1973-1974 freshman class. A copy is available from the CMDNJ Office of External Relations, 100 Bergen Street, Newark, 07103.

The profile shows that the majority of the students at the CMDNJ-Rutgers Medical School and the CMDNJ-New Jersey Medical School scored between 600-700 on the medical college admissions test. At the CMDNJ-New Jersey Dental School the admissions test was spread primarily between the 4 through 6 range with the average academic score 17 and the manual score, 15.

Seven successful medical school and six dental school applicants had no college degree. But the balance of the 267 freshmen held degrees—106 bachelors of science and 115 bachelors of arts. With 41, Rutgers, the State University of New Jersey, leads all undergraduate colleges in the number of successful candidates. Other students completed undergraduate work at schools ranging from the University of Mayaguez in the Philippines to New Jersey colleges or universities.

In their undergraduate grades, the new freshmen ranked high. Over half had averages above 3.4 while 31 members of the class of 1977 had averages of between 4.0 and 3.8. Among the sciences, biology was the most pop-

ular undergraduate major, with 108 degree holders having chosen this discipline. Psychology proved to be the next favorite degree with 18, and pre-medical and pre-dental course graduates totalled 21.

The present freshmen classes include the largest proportion of women in the history of the college, with 65 women to 142 men enrolled in the medical schools.

The students come from a variety of backgrounds. While data on the occupations of their mothers was not readily available, the fathers of 19 freshmen were physicians, 6 were dentists, 40 were laborers, and 82 were businessmen.

Communicable Diseases in New Jersey

The following communicable diseases were reported to the Communicable Disease Control Program of the New Jersey State Department of Health during April 1974:

	April 1974	April 1973
Aseptic meningitis	0	23
Primary encephalitis	0	0
Hepatitis: Total	185	187
Infectious	74	155
Serum	38	32
Unspecified	73	
Meningococcal Meningitis	4	6
Mumps	66	472
German Measles	70	924
Measles	1222	60
Salmonella	55	60
Shigella	46	47
Tuberculosis	125	
Syphilis-Primary & Secondary	80	
Gonorrhea	1796	

Note: Gonorrhea, syphilis, and tuberculosis figures are for the previous month.

Influenza

The 1973-1974 influenza season has drawn to a close and a number of interesting observations can be made. In this season, the New Jersey State Department of Health Laboratory documented the occurrence of outbreaks of both influenza A and influenza B by isolation of the viruses and by serologic conversion of acute and convalescent sera. Outbreaks of

both types of influenza occurred later in the season than usual. The rare complication of encephalopathy and fatty infiltration of the liver (commonly known as Reye's Syndrome) in children with influenza B and other virus infections was reported in New Jersey and throughout the country.

School absenteeism is one of the primary indicators of influenza activity in the state. Reports of absentee rates greater than 15 percent did not begin until the end of January. However, once begun, reports of increased absenteeism continued steadily through February and into March. Twelve counties throughout the state had school systems reporting high rates of absenteeism to the Communicable Disease Program.

The clinical illness in school-aged children was characterized by fever, headaches, sore throat, malaise, and later cough. Gastrointestinal disturbances were uncommon. Isolation of influenza B virus from pharyngeal gargles and serologic conversions confirmed influenza B as the etiologic agent.

Outbreaks of influenza A were first reported in March, the earliest one reported on a na-

tional level came from Arkansas. A high level of influenza A activity in the middle Atlantic States resulted in a rise above the expected incidence of influenza and pneumonia deaths in this region of the country. There were two significant outbreaks of documented influenza A in New Jersey.

In March a large city hospital in northern New Jersey experienced a nosocomial outbreak of respiratory tract infection. Seven female patients in a 24-bed room became ill within 5 days. Serologic conversion for influenza A2 was obtained in four of these women. One A2 isolate was obtained from a throat swab. Coincidentally a 19-year-old male was hospitalized with pneumonia. His antibody titers were consistent with a diagnosis of current infection with influenza A2.

The second outbreak occurred in a prison in central New Jersey in late March and early April. Approximately 20 percent of the inmates were clinically affected. Nine men required hospitalization because of fever as high as 104° and pneumonitis. Isolation of influenza A2 virus was made from pharyngeal washings, and serologic testing confirmed the presence of a current influenza A2 infection.

AMA Annual Convention

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McCormick Place, Chicago

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- Scientific Exhibits
- ASCP Workshop
- Medicine and Religion Program
- Seminar on Scientific Writing

Woman's Auxiliary Meeting at Drake Hotel

Exhibition of Physicians' Art

McCormick Place

CLINICAL NOTES

Readers of THE JOURNAL are invited to submit personal contributions for this new page. Material of general interest, which can be concisely summarized (one or two paragraphs—up to 150 words), and does not require a thorough report, is preferred. If you have a successful new procedure, a brief practical suggestion, or a bizarre or unusual clinical experience you would like to share with your colleagues, please send it to us (PO Box 904, Trenton 08605) for "Clinical Notes."

Therapeutic Drug Information Center

The New Jersey Regional Pharmaceutic and Therapeutic Drug Information Center, which is located at the Valley Hospital in Ridgewood, is a project of the New Jersey Regional Medical Program. The Center serves as a source of intelligence on specific problems, articles, and reports concerning pharmaceutic and therapeutic information. A specialized library maintained by the Center contains complete information about U.S., foreign, investigational, and proprietary drugs, including their identification, availability, interactions, compatibility, side effects, dosage, adverse reactions, and so on.

The Center is staffed by trained pharmacists. Jack M. Rosenberg, Pharm. D., Associate Professor of Pharmacy and Director of Drug Information, Brooklyn College of Pharmacy, is Project Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College is pharmacologist consultant. The service is free, available Monday through Friday from 9 a.m. to

5 p.m.—telephone (201) 445-4900, extension 132. Below are three questions and answers handled by the Center recently.

1. Do you have any information concerning the value of procaine as a rejuvenation agent?

There are well over 100 papers with claims on behalf of procaine injections for senility and associated degenerative diseases.

For about 20 years, Gerovital H-3 (a Rumanian preparation of procaine hydrochloride) has been used in Europe on geriatric populations to ameliorate both physical and mental problems. There have been claims of "dementia," euphoria, skin revitalization, the production of an anabolic effect, restoration of failing endocrine function, and so on, following administration of this drug. These effects have not been confirmed by workers in this country or Canada.^{1,2}

A recent study which involved ten senile-arteriosclerotic patients with features of depression showed that Gerovital H-3 produced a mild euphoriant effect which, however, was partly obscured by the variability in the clinical picture of dementia. The mechanism most likely which brings about this effect is a reversible inhibition of monoamine oxidase, the levels of which have recently been found to increase with age. Clinically, no changes in orientation, memory, paranoid ideation, nor insight were observed.³

Four groups of British clinicians made a thorough study of the claims of procaine for nine months to a year, employing double-blind techniques and an adequate number of aged patients of both sexes. The conclusion reached was that procaine used as a rejuvenating agent is unjustified and that the injections have no value.^{4,5,6,7}

Many European clinicians, formerly enthusiastic advocates of procaine, now discovered that procaine alone was not nearly as effective as was procaine with a specific additive. The long list of additives include: corticosteroids, androgens, thyroid, vitamins, and tissue extracts, singly or combined. Unfortunately, few agree as to what that additive should be.

Many claims have been made for procaine, but none has been substantiated by well-controlled trials and until proved otherwise, health practitioners should not pay too much attention to these claims.

References

- ¹Verzar F: Note on the influence of procaine (Novocaine), para-aminobenzoic acid and diethylethanolamine on the aging of rats. *Gerontologia* 3:351, 1959
- ²Luth P: A review of procaine-therapy in elderly individuals. *J Gerontol* 15:395, 1960
- ³Sahalis G *et al*: A trial of Gerovital H-3 in depression during senility. *Curr Ther Res* 16:59, Jan., 1974
- ⁴Fee SR and Clark ANG: Trial of procaine in aged. *Brit Med J* 2:1680, Dec. 23, 1961
- ⁵Berryman JAW, Forbes HAW and Simpson-White R: Trial of procaine in old age and chronic degenerative disorders. *Brit Med J* 2:1683, Dec. 23, 1961
- ⁶Hirsh J: Clinical trial of procaine hydrochloride. *Brit Med J* 2:1684, Dec. 23, 1961

⁷Isaacs B: Trials of procaine in aged patients. *Brit Med J* 1:188, Jan. 20, 1962

2. Which if any of the tetracycline drugs can be used in a patient with renal impairment?

Little and Bailey¹ compared the effects of five tetracycline drugs on blood urea nitrogen levels in a group of patients with impaired renal function and found that doxycycline (Vibramycin®), unlike tetracycline, oxytetracycline (Terramycin®), lymecycline (not marketed in the United States), and demeclocycline (Declomycin®), did not cause a rise in BUN levels in these patients.

Fabre, *et al.*² reported that in patients with renal impairment the excretion of tetracycline, oxytetracycline, methacycline (Rondomycin®), and rolitetracycline (Syntetrin®), is delayed and the serum half-life of these products is significantly prolonged. In cases of anuria the half-life of tetracycline was reported to be increased to 4 to 5 days instead of 8.5 hours which is the half-life in patients with normal renal function. Likewise, the normal serum half-life of oxytetracycline in patients with oliguria and anuria increased from 9.3 hours to 48 to 66 hours.

There is conflicting data regarding the effect of minocycline (Minocin®) in patients with renal impairment. One study reported that in patients with a creatinine clearance below 5 ml/min the plasma half-life of minocycline increased from a normal of 13 hours to at least 68 hours.³ McHenry, *et al.*⁴ on the other hand reported that the half-life of minocycline was not significantly increased in patients with severe renal impairment. However, the most recent study by George, *et al.*⁵ reported a significant increase in BUN in patients with pre-existing renal impairment after 4 days of minocycline therapy at the recommended dosage and in patients treated with a reduced dosage of the drug.

There have been numerous reports of the use of doxycycline in patients with impaired renal function, none of which have found significant increases in BUN, creatinine clearance or increased serum levels of the drug.^{2, 6, 7, 8, 9}

Based on the available data it is clear that when a tetracycline is indicated in patients with impaired renal function, doxycycline is the drug of choice.

References

- ¹Little P and Bailey R: Tetracyclines and renal failure. *New Zealand Med J* 72:183, Sept 1970
 - ²Fabre J, *et al*: The kinetics of tetracycline in man II. *Schweiz Med Wochr* 101:625-633, 1971
 - ³Bernard B, *et al*: Clinical pharmacologic studies with minocycline. *J Clin Pharmacol* 11:332, Sept-Oct 1971
 - ⁴McHenry M *et al*: Minocycline in renal impairment (abstract). *Clin Pharmacol Ther* 13:146, Jan-Feb 1972
 - ⁵George C *et al*: Minocycline in renal failure, *Med J Australia* 1:640, Mar 31, 1973
 - ⁶Stein W *et al*: Doxycycline serum levels in patients with renal insufficiency, *Arzneimittelforschung* 19:827, May 1969
 - ⁷Merier G *et al*: Behavior of doxycycline in renal insufficiency, *Helv Med Acta* 35:124, Nov 1969
 - ⁸Zech P and Traeger J: Tolerance of doxycycline in severe renal insufficiency. *Lyon Med* 222:943, Nov 23 1969
 - ⁹Mahon W *et al*: Studies on the absorption and distribution of doxycycline in normal patients and patients with severely impaired renal function. *Canad Med Assn J* 103:1031, Nov 7 1970
3. What are the latest recommendations concerning utilizing isoniazid for preventive therapy?
- The use of isoniazid with appropriate safeguards must be based on a comparison of the benefit of preventive therapy with the risk of hepatic injury. Recently, the following recommendations were published by the Center for Disease Control¹:
- For positive tuberculin reactors under 35 years of age, the benefit of isoniazid therapy in preventing tuberculosis clearly outweighs the risk of hepatitis, even in the absence of additional risk factors. In positive tuberculin reactors 35 years and over, the risk of hepatitis precludes the routine use of preventive therapy. However, the presence of additional risk factors may increase the likelihood of subsequent tuberculous disease sufficiently to warrant offering preventive therapy regardless of age.
- No significant changes were made in the recommendations for preventive therapy for the following groups, listed in order of priority:
- a. Household members and other close associates of persons with recently diagnosed tuberculous disease
 - b. Positive tuberculin reactors with findings on the chest roentgenogram consistent with nonprogressive tuberculous disease, without positive bacteriologic findings, and without a history of adequate chemotherapy
 - c. Newly infected persons
 - d. Positive tuberculin reactors in the following special clinical situations:
 1. Prolonged therapy with adrenocorticoids
 2. Immunosuppressive therapy
 3. Some hematologic and reticuloendothelial diseases, such as leukemia or Hodgkin's disease
 4. Diabetes mellitus
 5. Silicosis
 6. After gastrectomy
- Isoniazid administration is contraindicated in patients who have had previous isoniazid-associated hepatic injury, severe adverse reactions to isoniazid, acute liver disease of any etiology, and pregnancy. Special caution is advised but preventive treatment is not contraindicated in those receiving any medication on a long-term basis, those receiving Dilantin, daily users of alcohol, patients who have previously discontinued isoniazid because of possible related side effects and those who may now have chronic liver disease.
- The Center for Disease Control concluded that monitoring by routine laboratory tests is not useful in predicting hepatic disease in isoniazid recipients and therefore is not recommended.

Reference

- ¹Anon: Isoniazid-associated hepatitis: summary of the report of the tuberculosis advisory committee and special consultants. *Morbidity and Mortality* 23:97, Mar 16, 1974

CLINICAL NOTES

Lomotil® Intoxication in Pediatric Patients

Miles E. Drake, M.D. and Miles E. Drake, Jr., A.B.*
Vineland

The widespread use of Lomotil® (diphenoxylate hydrochloride and atropine sulfate) in infants and children under six years of age is fraught with danger of intoxication and even death. The accidental ingestion of large amounts of Lomotil® results in an acute emergency situation which must be treated promptly and vigorously.^{1,2} The therapeutic administration of Lomotil® to children can produce an insidious intoxication which may be far more difficult to diagnose, and which may thus delay treatment.

Lomotil®, which is widely used in the treatment of diarrhea in the pediatric age group, is dangerous and unwarranted. The ensuing toxicity is due to the pharmacologically active constituents of the preparation. These possess a double-barreled potential for severe toxicity, which becomes even more alarming in the presence of mild to moderate dehydration and acidosis.

Each teaspoonful or tablet of Lomotil® contains 0.025 mg. atropine sulfate with 2.5 mg. diphenoxylate hydrochloride. The narrow margin between therapeutic and toxic doses, and the high incidence of atropine hypersensitivity, make Lomotil® a potentially dangerous therapeutic agent.

The early signs of intoxication last one to three hours and are due to atropine. They are hyperpyrexia, flushing of the skin, tachycardia, and febrile convulsions. The pupils are initially dilated, and then become fixed pinpoint pupils; this is caused by the morphine-like action of diphenoxylate. Hypotonia and the loss of deep tendon reflexes are also observed.

The late signs, which are also due to this morphine-like action, usually appear abruptly after three to eight hours. They include a rapid fall in temperature, disappearance of skin flush, progressive central nervous system depression, slowing and possible cessation of respiration, generalized convulsions (probably caused by hypoxia) and paralytic ileus. Any or all of the above signs can and do occur with therapeutic doses of Lomotil®. They can be progressive and are thus indications for immediate hospital admission. Delay in treatment can result in death due to respiratory depression and failure.

Treatment should be oriented toward the removal of any existing drug in the stomach by gastric gavage or induced emesis. Gastric gavage is preferable, for this allows the introduction of activated charcoal into the stomach. The usual dose is 2 gm./kg. body weight. Intravenous fluids should be used to correct acidosis and dehydration. Their use also permits the administration of a narcotic antidote. Narcon® (Naloxone hydrochloride), 0.01 mg./kg. body weight, is the drug of choice since it does not depress respiration and thus will not exacerbate any respiratory depression that might have been caused by barbiturates. If Narcon® is not available, then Nalline® (nalorphine) 0.1 mg/kg. body weight, or Lorfan® (levallorphan tartrate), 0.02 mg./kg. may be given intravenously. It is well to remember that both Nalline® or Lorfan® may further depress the respiratory center if the diagnosis is in error and the symptoms are, in fact, due to barbiturates. The narcotic antidotes are given only to alleviate respiratory depression, and never to arouse a comatose patient.

* Mr. Drake is a student at the Medical School of Duke University.

¹Harris JT and Rossiter M: Fatal Lomotil® poisoning. *Lancet* 1:150, 1969

²Snyder R and Mofenson HC: Accidental ingestion by a 22-month old child. *Clin Pediat* 12:1 1947

If respiration improves with the first injection of Narcon® but ventilation is still inadequate, one may repeat the Narcon® at five-to-ten minute intervals. Nalline® or Lorfan® should not be repeated for at least thirty minutes.

The bladder should be catheterized and kept

empty to avoid reabsorption of the atropine; urinary retention may be caused by both atropine and diphenoxylate hydrochloride.

In summary, we urge that all physicians treating infants and children avoid the potentially dangerous use of Lomotil® for the treatment of diarrhea.

Lithium Carbonate for Ménière's Disease*

Elmar G. Lutz, M.D./Wayne

Three non-affective disorders, Ménière's syndrome, tardive dyskinesia, and Huntington's chorea, in a recent symposium in Geneva, were reported to show some therapeutic response to lithium salts. Relief from Ménière's disease during lithium carbonate maintenance treatment of manic-depressive illness occurred in one of my patients, a 61-year-old female, who for 14 years had suffered from paroxysmal vertigo with bilateral moderate hearing loss of the inner ear type. This condition had been

essentially non-responsive to other medical measures. The serum lithium level was maintained between 0.5-1.0 mEq/liter. Within four weeks of lithium carbonate (Lithane®, Eskalith®) treatment the patient became asymptomatic and has not manifested any episodic symptoms of Ménière's syndrome for the past 36 months. There was no further progression of the hearing loss.

A hypothesis for the pathophysiology of Ménière's disease implicates local electrolyte imbalance, leading to impairment of ionic gradients between endolymph and perilymph. Lithium, a sodium antagonist, may have a stabilizing effect by influencing several aspects of ionic metabolism and transfer across the cell membrane.

*From the Department of Neuropsychiatry, St. Mary's Hospital, Passaic, New Jersey.

More on Cancer Cytology

Allan Lazar, M.D./Leonia

The "Cancer Cytology" communication of Martin R. Rush, M.D. (J. Med. Soc. N.J. Vol. 71, No. 1, Page 62) was most welcome. As he emphasized, an adequate specimen is essential for cytologic examination and reporting. Discarding the mucous plug of the cervix has been a matter of confusion. We concur that it is advisable that this material be discarded before the cytology specimen is collected.

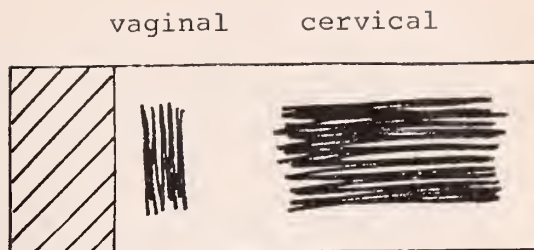
The collection technique suggested by Dr.

Rush, namely, to collect both cervical and vaginal cells on the same spatula and spread them, together, on the slide, will result in an adequate specimen; however, a number of variations of this technique are appropriate. These variations produce excellent specimens and may assist the cytopathologist in giving the clinical physician additional information concerning his patient.

Collecting cells from the exocervix by use of a wooden spatula should be supplemented by the collection of cells from well inside of the endocervical canal, by use of a non-absorbent

cotton-tipped swab. This will detect abnormalities of the endocervical canal, as well as the exocervix and os. Vaginal material is collected separately, using a fresh cotton-tipped applicator.

The cervical and vaginal material can be placed upon separate slides or upon one slide. In the one-slide technique the vaginal material is placed at one end of the slide by rolling it in the short dimension; the cervical material is placed on the remainder of the slide, rolling it in the long dimension. In this way, hormonal determinations, specific infections, and bacterial flora can be determined from



the vaginal portion; cellular abnormalities can be concentrated upon in examining the cervical portion. If a non-specific inflammation is present, the clinician can be informed as to whether it is localized to the cervix, vaginal canal, or is present in both areas.

Infection Associated With Use of Bovine Heterografts as Hemodialysis Fistulas

H. Stephen Fletcher, M.D./Livingston*

The use of the modified Bovine heterograft for the construction of arteriovenous fistulas in chronic hemodialysis patients, who have run out of suitable autograft sites, is becoming increasingly popular. While the majority of these grafts work well in spite of the repeated punctures necessary for dialysis, we have recently encountered several severe *Pseudomonas aeruginosa* graft infections which necessitated removal of the graft. This is an extremely difficult technical procedure due to

the intense degree of incorporation of these grafts into surrounding tissue. We would, therefore, suggest that these grafts be reserved as an alternative in the construction of shunts for hemodialysis. When they are used, meticulous sterile technique should be observed in cannulation and, if possible, any developing veins as a result of the fistula be used for cannulation rather than the graft itself.

*From the Department of Surgery, St. Barnabas Medical Center, Livingston.

Film on Reproductive Endocrinology

Upon request of physicians, Wyeth Laboratories will show a 25-minute color film entitled "Reproductive Endocrinology." A related monograph is then given each physician in attendance. Among the authors are Robert W. Kistner, M.D., Edward T. Tyler, M.D., Alan F. Guttmacher, M.D., Elsie M. Carrington, M.D., and Kamran S. Moghissi, M.D. These authorities outline specific means for preventing conception, including ovulation, diagnosing imbalance, and treating deficiencies. Addi-

tionally, certain of the contributors provide a glimpse into the contraceptive future.

Inserted in the back of the monograph there is a 20-question test for the individual physician's self-evaluation.

"Reproductive Endocrinology," produced by Medcom, Inc., is available through Wyeth sales representatives or by writing to Professional Service, Wyeth Laboratories, P.O. Box 8299, Philadelphia, Pennsylvania 19101.

ANNOUNCEMENTS

Psychiatric Training Programs

At 9:30 a.m., on the Wednesdays indicated, the Saint Barnabas Medical Center in Livingston will present the following in a series of psychiatric training courses. This is part of a two-year program for psychiatrists, other physicians, psychologists, social workers, and professionals in allied fields. Appropriate credit will be allowed, as determined by MSNJ. Inquiries should be addressed to the Department of Psychiatry, Attention of Miss Hoffman, Saint Barnabas Medical Center. Livingston 07039.

June 12	Psychoneuroses
June 26	Psychoneuroses

Graduate Courses in Medicine

The following schedule, in the series, "Advances in Medicine," has been announced by the Bergen Pines County Hospital, Paramus. Sessions are held in the hospital auditorium from 9:30 to 11 a.m. on the Wednesdays indicated and collation is offered at 9 o'clock. For further information write to the Office of Medical Education, Bergen Pines County Hospital, Paramus 07652.

June 12	Annual House Staff Symposium
June 19	Graduation

Psychiatric Graduate Programs

Fair Oaks Hospital in Summit, in cooperation with the Academy of Medicine of New Jersey, has arranged the following programs in the series, "Current Topics in Psychiatry:"

June 12	Hypnosis for Compulsive Eating, Smoking Roland D. Roecker, M.D.
June 26	Adolescent Psychiatry, Part II Martin Weinapple, M.D.

Sessions are held from 3 to 4:30 p.m. (Wednesdays) at the hospital, 19 Prospect Street, Summit. Further information may be obtained from Granville L. Jones, M.D., Director of Research and Education.

Graduate Lectures in Surgery

The following programs have been announced for the 1973-1974 "Distinguished Lecture Series" offered by the Department of Surgery of the New Jersey Medical School, CMDNJ:

September 9	Surgery of Complications of Coronary Artery Disease W. Gerald Austen, M.D. Chief, General Surgical Services Harvard Medical School— Massachusetts General Hospital
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Lectures are held at 4 p.m. in the amphitheater, 2nd floor, Martland Hospital, Newark. There is no charge. Guarded parking is available in parking lot M, 12th and Bergen Streets. For further information, please write to Eric J. Lazaro, M.D., Professor of Surgery, Martland Hospital Unit, CMDNJ, 65 Bergen Street, Newark 07107.

Psychiatric Symposium

A two-day psychiatric symposium will be held on October 11 and 12, 1974, at the Taylor Manor Hospital in Ellicott City, Maryland. The theme is rational psychopharmacotherapy and the right to treatment, and will cover such topics as polypharmacy in psychiatry, neuroleptics, treatment-resistant patients, fear of side effects, peer review of psychotropic drug use and others. An eminently qualified faculty has been selected. Registration fee is \$50 (students and residents, \$30). Additional information is available from the Symposium Secretary, Taylor Manor Hospital, Ellicott City, Maryland 21043, telephone (301) 465-3322.

Ophthalmology Symposium

On November 13, 1974, at the Robert Treat Hotel in Newark, the New Jersey Academy of Ophthalmology and Otolaryngology offers an all-day symposium—the morning session on pediatric ophthalmology and the afternoon session on glaucoma. For further information, please communicate with the Executive Sec-

retary of the Academy at 15 South Ninth Street, Newark 07107.

Bronchoesophagology and Laryngology Course

From November 18 to 23, 1974, the Department of Otolaryngology and Bronchoesophagology of the University of Illinois and the Eye and Ear Infirmary of the University of Illinois Hospital will conduct a continuing education course in laryngology and bronchoesophagology. Instruction will be provided by animal demonstrations, practice in bronchoscopy and esophagoscopy, diagnostic and surgical clinics, as well as didactic lectures. The group will be limited to twenty. For information, please write to the Department of Otolaryngology, Eye and Ear Infirmary, 1855 West Taylor Street, Chicago 60612.

Course in Diseases of the Liver

The Department of Medicine of the University of Miami School of Medicine will offer a three-day graduate program in diseases of the liver. Featured will be studies in the diagnostic approach to liver disease and jaundice,

including clinical examination, laboratory tests, hepatic scintiscan, needle biopsy, and laparoscopy. The roles of the radiologist and surgeon will be emphasized. Discussions will cover viral, drug-induced, and alcoholic hepatitis, Reye's syndrome, Budd-Chiari syndrome, biliary cirrhosis, malignant tumors, amebic abscess, ascites, hepato-renal syndrome, portal hypertension, and hepatic coma. The dates are November 21-23, 1974; the place is Miami Beach; tuition—\$150 (residents, \$75 and nurses, \$50). Please make inquiries to Leon Schiff, M.D., Professor of Medicine, University of Miami School of Medicine, P.O. Box 520875 Biscayne Annex, Miami, Florida 33152.

Morristown Hospital Approved for Surgical Residency

The American Medical Association has recently given approval to a five-year residency program in surgery for the Morristown Memorial Hospital, starting July 1974. There are no vacancies for this year, but applications may be submitted to the Department of Surgery for later acceptance (100 Madison Avenue, Morristown 07960.)

MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s).

June

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| 9 | Stroke Syndrome
8-9:15 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by Helene Fuld Hospital and Academy of Medicine of New Jersey) | (Sponsored by AAFP and Academy of Medicine of New Jersey) |
| 10 | Porta-Cava Shunt
7:45-9 p.m.—Beth Israel Medical Center Newark
(Sponsored by Newark Beth Israel Medical Center and Academy of Medicine) | 12 Radiotherapy of Gastrointestinal Cancer
10:30-11:30 a.m. Clara Maass Memorial Hospital, Belleville
(Sponsored by the Academy of Medicine of New Jersey and Clara Maass Hospital) |
| 11 | Otolaryngology
6-10 p.m.—Holy Name Hospital, Teaneck
(Sponsored by Bergen County Society of Otolaryngology) | 12 Neuroscience Lecture Series
19 10:30-11:30 a.m.—VA Hospital, East Orange
26 (Sponsored by Academy of Medicine and CMDNJ—New Jersey Medical School) |
| 11 | Medical-Legal Aspects of Medicine in Surgery
9 p.m.—Bayonne Hospital, Bayonne | 12 Current Topics in Psychiatry
26 3-4:30 p.m.—Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine) |

- 13- Neckache and Backache
- 15 Saddlebrook Marriott Hotel, Saddle Brook
(Sponsored by Committee for Continuing Education on Orthopedic Medicine)
- 17- Techniques for Health Record Analyst
- 21 CMDNJ—Rutgers Medical School, Piscataway
(Sponsored by Commission on Professional and Hospital Activities)
- 17 Diagnosis in Neurology and Neurosurgery
1 p.m.—Ancora Psychiatric Hospital, Hammonton
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 18 Allergy Program
8-10 p.m.—Holy Name Hospital, Teaneck
(Sponsored by Holy Name and Englewood Hospitals)
- 19 Neurology Cases of Clinical Interest
7-9 p.m.—Veterans Administration Hospital East Orange
(Sponsored by CMDNJ Neurology Section and Academy of Medicine)
- 20 Diagnosis of the Anemic Patient
11:30 a.m.—Helene Fuld Hospital, Trenton
(Sponsored by AAFP and Academy of Medicine of New Jersey)
- 25 Sarcoidosis
8 p.m.—Warren Hospital, Phillipsburg

(Sponsored by Academy of Medicine of New Jersey)

- 30 Graduate Teaching Program
4:30-6 p.m.—Somerset Hospital, Somerville
(Sponsored by Somerset Hospital and Academy of Medicine)

July

- 3 Neuroscience Lecture Series
- 10 10:30-11:30 a.m.—VA Hospital, East Orange
- 17- (Sponsored by Academy of Medicine and CMDNJ—New Jersey Medical School)
- 24- (Sponsored by Academy of Medicine and CMDNJ—New Jersey Medical School)
- 31
- 17 Workshop in Neurology
7-9 p.m.—VA Hospital, East Orange
(Sponsored by Academy of Medicine and CMDNJ—New Jersey Medical School)

August

- 7 Neuroscience Lecture Series
- 14 10:30-11:30 a.m.—VA Hospital, East Orange
- 21- (Sponsored by Academy of Medicine and CMDNJ—New Jersey Medical School)
- 28 CMDNJ—New Jersey Medical School)
- 21 Workshop in Neurology
7-9 p.m.—VA Hospital, East Orange
(Sponsored by Academy of Medicine and CMDNJ—New Jersey Medical School)

LETTERS TO THE JOURNAL

Phenformin in Psoriasis

April 9, 1974

Dear Sir:

In a follow-up of my recent communication to you pertaining to the use of phenformin in psoriasis, I would like to submit to you the enclosed copy of a letter I received from Dr. Shuman of Temple University.

I had written to him about my observation in the amelioration of psoriasis by the use of phenformin.

(Signed) Frederick Babad, M.D.

March 23, 1974

Dear Doctor:

While we have a number of diabetic patients with psoriasis, none has been treated for his

diabetes with phenformin. Our dermatology department knows of no work in this field. I am attempting to interest Dr. Van Scott into looking at the problem. He is a research dermatologist connected with the Skin and Cancer Hospital.

We will add phenformin to the programs of some of our psoriatic diabetic patients to see what effect the agent has upon their psoriasis.

Certainly, the use of 50 to 100 mg. of phenformin should not bother the non-diabetic since the drug does not usually lower the blood sugar of the normal person. However, they may experience the usual side effects of the drug; one of these is lactic acidosis which is seen in patients who consume large amounts of alcohol while on phenformin.

Your observations are most intriguing and I will attempt to study the problem further. Many thanks for writing to me.

Sincerely,

(Signed) Charles R. Shuman, M.D.
(Temple University Hospital)

Press Interviews and the Public Image

Dear Sir:

April 15, 1974

I was very interested in your editorial on medicine and the press. I have some first-hand views I should like to share with you and perhaps your readership about this topic. Let me cite my qualifications. I am a practicing allergist in Monmouth County as well as a nationally syndicated medical columnist.

Don't worry too much about how the press treats the individual doctor. We should concern ourselves with how the press treats medicine as a profession. For some time now many of the major publications have been in an adversary position with regard to doctors. They feel that we are underworked, overpaid, monopolistic, and in many cases, thoughtless, careless, and harmful. They are not so much interested in the individual doctor and the individual medical advance as they are in the doctors as a group, their distribution, work habits, supervision, and incomes.

So although your advice to doctors about interviews is pertinent, what is more important is the image that the individual doctor gives to the press about the medical profession. I think you will find that individual reporters

and editors are no different than the general public. Each believes that his personal physician is highly skilled and competent, trustworthy and reliable. But "those other doctors" are probably no good. What we as physicians can do, rather than being careful about the information we release in interviews, is to carry on a concerted public relations campaign with those members of the press whom we number among our patients. We should spend time explaining to our reporter and editor patients about the problems of medical care as they arise on a day-to-day basis. We should point out to them the factors which combine to achieve satisfactory outcome of their personal medical problems and explain carefully why every outcome is not necessarily as successful.

Reporters and editors are looking for news. Unfortunately, bad seems to be newsworthy than good. So they will dig around and advertise the unhappy aspects of medical care much more than the pleasant ones. But with personal effort by individual physicians, we could change this.

(Signed) Irwin J. Polk, M.D.

Editor's Note: The editorial—"Medicine and the Press"—to which Dr. Polk refers appeared in the April 1974 JMSNJ and was authored by our late Editor, Henry A. Davidson, M.D.

OBITUARIES

Dr. Robert C. Anderson

With the death, on April 18, 1974, of Robert C. Anderson, M.D., the people of Essex County lost one of their outstanding medical practitioners and the Board of Trustees one of its faithful members. Born in 1908, Dr. Anderson was graduated from Georgetown University Medical School in 1934 and practiced obstetrics and gynecology in the Newark area for many years. He was a Fellow of the American College of Surgeons, the American College of Obstetrics and Gynecology, and the International College of Surgeons; he also

held membership in the prestigious New Jersey Society of Surgeons. He was director of obstetrics and gynecology at St. James Hospital in Newark and had been attending gynecologist at Martland, Presbyterian, and St. Michael's Hospitals. Dr. Anderson had a term as President of the Essex County Medical Society in 1968, and had been a member of MSNJ's Board of Trustees since 1969. He was a member also of the Committee on Membership Directory and was MSNJ's liaison to the Medical Assistants Association and the Cooperating Committee with the Department of Law and Public Safety. Dr. Anderson also held an appointment as Assistant Clinical Professor of Obstetrics and Gynecology at CMDNJ, New Jersey Medical School.

Dr. Jacob Bleiberg

Jacob Bleiberg, M.D., one of Essex County's well-known dermatologists, died on March 17, 1974, at his home. Born in 1910, Dr. Bleiberg was a 1933 graduate of New York University Medical College and took his graduate studies in allergy at New York Post Graduate Hospital and in dermatology at New York Skin and Cancer Hospital, becoming board certified in the latter specialty. He was attending dermatologist at Beth Israel and St. Michael's Hospitals in Newark and consultant in that department at the Eye and Ear Infirmary in Newark and at the Kessler Institute for Rehabilitation in West Orange. Dr. Bleiberg was also associate clinical professor of dermatology at CMDNJ, New Jersey Medical School. He was a member of the Academy of Medicine of New Jersey, a Fellow of the American Academy of Dermatology, and a member of the New Jersey Dermatological Society. During World War II, Dr. Bleiberg was a medical officer in the Army of the United States.

Dr. Franklin E. Chamberlin

We have just learned of the death on March 2, 1974, of Franklin E. Chamberlin, M.D., one of our senior members from the Cape May County Medical Society. Born in 1893, Dr. Chamberlin was graduated from Temple University Medical College in 1922 and practiced general medicine in Delaware County, Pennsylvania, until 1950, when he accepted a full-time position with the Pennsylvania Public Health Department in the division of crippled children. In 1960, he retired to Ocean City, New Jersey, and transferred his membership to the Cape May County Medical Society. There he became associated, part-time with a local physician and was active on the emergency room staff at the Somers Point Memorial Hospital.

Dr. Samuel Felder

One of Hunterdon County's senior practitioners, Samuel Felder, M.D., died tragically in a fire on April 25, 1974, while vacationing in

the Poconos. A 1931 graduate of New York University Medical College, Dr. Felder was a general practitioner who had cared for the people of Flemington and surrounding area for many years. He was a member of the attending staff at Hunterdon Medical Center and previously had been associated also with the Somerset Hospital in Somerville. During World War II he served his country as a Captain in the Medical Corps of the Army of the United States, and had a term as President of the Hunterdon County Medical Society in 1954-1955. Dr. Felder was 68 years old at the time of his death.

Dr. Angelo A. Guariglia

At the untimely age of 42, death ended the career of Angelo A. Guariglia, M.D., a member of our Passaic County component. A native of New Jersey, Dr. Guariglia was graduated from the University of Naples School of Medicine in 1964. He returned to the United States and after internship and residency established an office for general practice in Prospect Park. He was associated with the Paterson General Hospital in the fracture clinic.

Dr. Michael Q. Hancock

Michael Q. Hancock, M.D., a member of our Monmouth County component, died on April 26, 1974, in Tuscaloosa, Alabama, where he had retired three years ago. Born in 1905 and a graduate of the University of Pennsylvania Medical College, class of 1938, Dr. Hancock was a general surgeon who had been director of surgery at Jersey Shore Memorial Hospital in Neptune and cared for the people of that area for 35 years. During World War II, he served in the Army Medical Corps with the rank of Lt. Colonel, and received the Bronze Star and Air Medal for rescuing personnel from a remote arctic outpost. Dr. Hancock was a Fellow of the American College of Surgeons and of the Academy of Medicine of New Jersey, and was a member of the American College of Gastroenterology.

Dr. Virgil Hayes

At the untimely age of 49, death cut short the career of Virgil C. Hayes, M.D., a practicing internist in Newark. A native of Asbury Park, Dr. Hayes spent nearly nine years in the United States Army before matriculating at Howard University Medical School, from which he was graduated in 1963. Following internship in Youngstown, Ohio, he returned to New Jersey and began the practice of internal medicine in Newark. Dr. Hayes had staff appointments at Presbyterian, Beth Israel, and St. James Hospitals in Newark and at Orange Memorial Hospital, and was physician at the Scudder Homes in Newark.

Dr. Louis Landaw

On April 4, 1974, Louis Landaw, M.D., one of Passaic County's senior physicians, died at the age of 68. Before retirement, three years ago, he was a well-known practicing obstetrician and gynecologist with offices located in Paterson. Following graduation from New York University Medical School in 1931, Dr. Landaw took residencies in his chosen field at Margaret Hague Maternity Hospital in Jersey City and at Mt. Sinai Hospital in New York City. He was a Fellow of the American College of Obstetricians and Gynecologists and of the International College of Surgeons, and had been on the associate staff at Barnert Memorial Hospital in Paterson.

Dr. Bohdan Olesnický

Bohdan Olesnický, M.D., a prominent general practitioner from Irvington, died on March 26, 1974, at St. Barnabas Medical Center in Livingston. A native of Berlin (Germany), Dr. Olesnický was graduated from Lviv University Medical School in Poland in 1939. He had practiced in New Jersey (first in Newark) since 1955. He was an associate in medicine at St. James Hospital in Newark, and held appointments in medicine and cardiology at St. Michael's Hospital in Newark and Irvington General Hospital. Dr. Olesnický was 60 years old at the time of his death.

Dr. Donald G. Reynolds

One of Monmouth County's well-known surgeons, Donald G. Reynolds, M.D., of Freehold, died on April 25, 1974, at the Jersey Shore Medical Center. A 1937 graduate of Temple University Medical School, Dr. Reynolds pursued graduate studies in surgery at Polyclinic Hospital in New York, and was elected to Fellowship in the American College of Surgeons. He was attending surgeon at Jersey Shore Medical Center in Neptune, at the Monmouth Medical Center in Long Branch, and at the Freehold Hospital. During World War II, he served as a medical officer in the AUS. Dr. Reynolds was 64 years old at the time of his death.

Dr. William C. V. Wells

Word has been received of the death on April 4, 1974, in Clearwater, Florida, of William C. V. Wells, M.D., an emeritus member of our Burlington County component. Born in 1895, Dr. Wells was a graduate of Hahnemann Medical College, class of 1921, and was a general practitioner in the Riverside area for many years. Following three and a half years' service during World War II as a Commander in the Medical Corps of the U. S. Navy, he accepted appointment (full-time) with the Veterans Administration and served first at the VA Hospital in Wilmington, Delaware, and later at a like facility in Camden. He was laureate of MSNJ's Golden Merit Award in 1971. Dr. Wells had retired to Belgrade Lakes, Maine and was vacationing in Florida at the time of his death.

Dr. Herman H. Zeitlin

Herman H. Zeitlin, M.D., one of Union County's senior internists, died on January 27, 1974, in Miami Beach, Florida, where he had retired in 1970 after a long and active career. Born in 1903, Dr. Zeitlin was a graduate of Northwestern University Medical College, class of 1927. He was associated with St. Elizabeth Hospital in Elizabeth and had served the people of Linden and surrounding area for 42 years. He gave generously of his knowledge in community activities, in addition to serving as police surgeon for his home town for 35 years.

BOOK REVIEWS

Medical Genetics. Victor A. McKusick and Robert Claiborne, Editors. New York, HP Publishing, 1973. Pp. 320. Illustrations 250. (\$13.95)

This excellent book consists of a compilation of articles which were published separately from 1969 to 1973 in the journal, *Hospital Practice*. There has been updating of the earlier articles because the rapidly expanding knowledge in medical genetics requires such changes on an almost annual basis. Basic aspects have been interwoven admirably with clinical aspects for each of the genetic disorders that are discussed; and all of the material is presented in the usual lucid, amply, and well-illustrated fashion of *Hospital Practice*, of which Robert Claiborne is Senior Editor.

The papers of the internationally famed authors have been arranged in appropriate sections—chromosomes, biochemical genetics, specific biochemical disorders, immunogenetics, multifactorial genetic disease, clinical applications. Almost all sections are devoted to overview aspects of the entire area being discussed, with appropriate specific examples added as necessary. However, section III is concerned mainly with specific biochemical disorders, and is best used as an in-depth reference source for those particular disorders.

The defect of disjointedness which accompanies compilation of material by various authors has been minimized. However, there are some omissions in the genetic information presented, e.g. dermatoglyphics, which is a reflection of this type of format.

In summary, this overall excellent book presents accurate conceptual knowledge with appropriate and specific illustrations and a good mix of basic and clinical aspects. While there are a few omissions, which would be less likely to occur in larger volumes written by one or two authors, the book does offer an adequate background in medical genetics in a pleasant, lucidly written style. This moderately-priced volume can be educationally enjoyed by practicing physicians, house staff, and medical students.

Theodore Kushnick, M.D.

Correlative Neuroanatomy and Functional Neurology. Joseph G. Chusid, M.D. Los Altos, California, Lange, 1973. Pp. 429. Illustrated. (Softback—\$8.50)

In his preface, Dr. Chusid indicates that this volume is intended for the beginner in clinical neurology and his aim is to relate some of the important structural and functional features of the nervous system to problems in clinical neurology. Beginners and specialists (at times) have been grateful for this book which has reached its 15th edition with almost encyclopedic coverage, remaining all the while trim in size and modest in price.

For the beginner, it should be stressed that the stated intention of this text is correlation of structure with normal and pathologic physiology. It is not a reference source for either the subtleties of differential diagnosis or the intricacies of current therapy. The selection and integration of the best illustrations from

most of the standard textbooks in the neurosciences is this book's most outstanding feature. The illustrations of certain angiograms should, however, be replaced with those of better clarity. This reviewer, a neurosurgeon, is disappointed to find only one neurosurgical textbook listed in the otherwise very complete three page appendix of selected reference books. An entire section should be included.

Any conscientious physician who turns to this book for reference or review and who reads attentively will find that he has chosen well his consultant in the fundamentals of neuroscience.

George L. Becker, Jr., M.D.

Decompression Babies. David M. Rorvik and O. S. Heyns, M.D. Foreword by Laurence Lundgren, M.D. New York, Dodd, Mead, 1974. Pp. 150. (\$5.95)

In 1959, Dr. O. S. Heyns, of Johannesburg, South Africa, devised a plastic air-tight suit to create a vacuum and thus cause a negative pressure within the suit. In its lower part is a "spacer, which resists atmospheric pressure." This is made of two sections of fiberglass: a bucket seat and an anterior cage (the dome) fitting over it in a groove. The air then is evacuated usually with a pump from a "slightly modified vacuum cleaner." The American version consists of a dome made out of a clear plastic which fits snugly over the protruding abdomen of the gravida. It has received the name of "baby bubble" and is marketed in this country under the trade name of "Birth-eeze". The theory behind it is that the negative pressure is supposed to help ease the pain during contractions and therefore make it unnecessary to use any analgesic drugs. The author also claims that "decompression during labor not only makes delivery faster and less painful, but protects the baby against the sort of oxygen deprivation that can, in a matter of minutes or even seconds, cause brain damage."

This reviewer had no experience with the use of decompression during labor nor has he seen it being used in any obstetrical department of four different hospitals with which he is connected. Therefore, he has no opinion as to the efficacy of this method in providing analgesia during labor. However, it is to be noted that Dr. Heyns' claims have not been substantiated in the literature. The method has not been adopted by many obstetricians in this country and is of questionable value.

Werner Steinberg, M.D.

Physician's Handbook. 17th Edition. M. A. Krupp, N. J. Sweet, E. Jawetz, E. G. Biglieri, R. L. Roe, Editors. Los Altos, California, Lange, 1973. Pp. 727. Illustrated. (Softback—\$6.50).

The bulk of this small softback is devoted to the indications, methodology, interpretation, and application of all types of laboratory examinations. In addition, there are sections on history taking and physical examination, radioisotopes, diets, poisons, pharmacology, and an assortment of diets.

As is evident from this brief description the editors have taken a large bite but I believe that they have failed to chew and digest it properly. There is no one center of thrust in this book and the information it contains is so varied that it lacks cohesiveness. There is nothing here which cannot be found in greater detail and with better clinical application in any medical text devoted to each subject. I cannot recommend this book.

Leo Lewin, M.D.

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